PALESTINE EXPLORATION FUND

Quarterly Statement.

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Palestine exploration quarterly

PALESTINE EXPLORATION FUND.

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Quarterly Statement.

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THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Committee and the Society have to lament the very unexpected death of the Rev. Theodore F. Wright, Ph.D., their Hon. Secretary for the United States. Mr. Wright was on his way to Palestine, and had written on the 7th November from Naples, which place his ship was to leave next day for Alexandria. A telegram announced his death on November 13th, by what sudden cause we are as yet not informed. From additional information received just before going to press, we understand that after leaving Naples he realized that he was unequal to the journey up the Nile and to Palestine, and was anxious to get home. He expired a few hours after leaving Alexandria, on the return voyage. He was so able, so zealous, and so kindly a representative of the Fund, that his loss seems almost irreparable. By his ability and tact the American support of our work had greatly widened and increased, and he never spared himself in promoting an interest in its objects.

We hope in our next issue to give a fuller notice of our much-lamented friend and coadjutor.

The Third Report since the resumption of the excavation of Gezer describes some extremely interesting discoveries. Most remarkable of all is an elaborate passage sloping downwards at a sharp angle and evidently of considerable antiquity. The work of clearing this out was very great, and Mr. Macalister only found out after sending his report that it led to a spring of water about 80 feet below the surface of the rock. That a tunnel of such

imposing dimensions as this is should have been hewn out for utilitarian purposes is striking. Semitic beliefs concerning the under-world, springs and caverns, are already well known, and only continued excavation will show whether this relatively enormous and laborious piece of work was merely intended for the water supply of Gezer. Another unlooked-for discovery was a small model of a shrine which, though fragmentary, may be regarded as one of the most interesting objects brought to light. Mention may also be made of a plaque of terra-cotta containing part of a royal cartouche; a cake of clay, retaining sufficient impression of a straw basket to permit a study of the manner in which the article was constructed; a mould for the manufacture of Astarte plaques; and a representation of a human figure, which, in spite of its grotesqueness, is of importance for archæology.

The "zodiac-tablet" published in the October *Quarterly Statement* has attracted great interest, and we are able in the present number to give a photograph with explanatory communications from well-known scholars. The Committee are indebted to these gentlemen, who have been kind enough to examine a photograph of the tablet and forward their opinions, and they hope that all who are able to throw further light upon this, or upon any other of the "finds" which necessitate expert knowledge, will favour them with their comments.

By promptly publishing all reports, and by illustrating them as fully as possible, the Fund has been able to place before its readers an amount of information the lasting value of which is scarcely realized by most of our readers. It is only about a year ago that the first effort was made to gather together the results of recent excavation in Palestine, and Father Vincent's *Canaan*, noticed in these pages (October, pp. 307–311), shows the bearing of the evidence upon future biblical study. In this book the excavation of Gezer holds a very prominent place, and quite apart from the *prominent* discoveries—the "high-place," the caves, etc.—it happens that Gezer has proved itself eminently suitable for the study of details (pottery, metals, etc.), the value of which is not at first so obvious to the ordinary reader, although ultimately they are of great value in deciding several important questions under discussion. Since that book was published, Gezer has still continued

to disclose its secrets, some of which are of a particularly striking character, *e.g.*, the "zodiac-tablet," and one becomes even more impressed with the part which Gezer is destined to play in the biblical research of the future.

But it is necessary also to remember how much there is which still remains obscure, uncertain, or unknown. At Gezer, as elsewhere in excavation, a few feet can make all the difference. A difference of only 5 feet in the position of the trench would have escaped the Troglodyte crematorium described in the first report. As it was, valuable and unique information was obtained on the early inhabitants of Palestine. Large areas, however, still remain untouched, and only by employing more labour does Mr. Macalister hope to "go as near the ideal as possible" before the Permit ceases. The Committee therefore desire to appeal very earnestly to subscribers and their friends to assist them in completing the excavation of Gezer as thoroughly as possible before the expiration of the extension of time granted by the Sultan. *Special donations* are invited.

In the early part of November Mr. Macalister had the satisfaction of receiving at the excavations several learned and distinguished visitors, who were deeply interested in the work. Among these have been Père Vincent and several learned monks, Dr. Schumacher, Prof. Brown, the new director of the American School; Prof. Watzinger (who has been excavating the Galilean synagogues for the Orient-Gesellschaft), and others. The Rev. F. Hugh Pope, O.P., who has undertaken lectures to Roman Catholic institutions in England in the Fund's work, also visited Gezer, and was much impressed with the importance of the recently discovered gallery, &c.

The greatest interest has been aroused by the publication (by Prof. Sachau of Berlin) of three Aramaic papyri relating to the Jews of Syene and their Temple of Yahu (*i.e.*, Yahweh, Jehovah). English readers will find full accounts of them in the *Guardian* for November 6th, and the *Expositor*, December. They prove the existence of a temple with its various temple rites from the beginning of the Persian age to the latter end of the fifth century, B.C., and are extremely valuable, not only for their contents, but also for the light they throw upon other Aramaic papyri previously

published. The three recently discovered allude to the sons of Sanballat and to the high-priest of Jerusalem, and show that relations were maintained between the flourishing Jewish colony and the mother-land. Apart from the absorbing interest of this "find" for Jewish religion and history, the new data will be of value to Palestinian archæology, since the study of the later Jewish remains (pre-Seleucidan) will naturally welcome this evidence for intercourse between two widely separated groups, and for the possibility of Egyptian influence in late times. Meanwhile there are other papyri whose publication by Professor Sachau will be eagerly awaited, and Professor Clermont-Ganneau, who himself has already obtained more than a hundred ostraca, has recently returned to Upper Egypt to pursue further researches.

In *Records of the Past*, Aug.–Sept., 1907, a brief abstract is given of Mr. Raphael Pumpelly's presidential address before the Geological Society of America a year ago on the early development of civilization in Central Asia. At Anau near Askabad, 300 miles east of the Caspian, excavation revealed six different populations. The oldest was represented by fairly good pottery ornamented by geometrical designs. Spinning was understood, and the bottomless bake-oven in use. The sheep, ox, goat, and pig were domesticated, and the horse also appears to have been known. The next people had the camel and used copper to a limited extent. Then came the use of the potter's wheel, and full knowledge of copper and some of lead; but bronze was unknown. Throughout these stages it was found that the children were buried in a contracted position, under the floors of the houses. The fourth population was lower in culture, and the pottery ruder, but they were supplanted by an iron-using race. In the shafts that were sunk, glazed pottery was found down to 5 feet above the lowest culture. In general "it is most interesting to observe by what common steps primitive people express their ideas, no matter how entirely independent of each other they may have been. From these people, who in all probability antedate the earliest known Egyptian dynasties, through almost all peoples who have been studied down to the Philippines of to-day, we find evidence of this natural skill in the use of conventional design, proving, we think, very conclusively, that it is a natural expression, and not an inherited one."

Mr. Joseph Offord writes:—

"Among the many Greek inscriptions from Delphi to be found in M. E. Bourguet's *De rebus Delphicis* is a letter from the Emperor Claudius, in which he asserts that not merely had he maintained certain worships at that site of sanctuaries, but also had sent a rescript to the Pro-consul of Achaia to do likewise in the territory subject to him. This personage is named, and is L. Junius Gallio, known to us by Acts xviii, 12. This decides A.D. 52 as being the year of Paul's visit to Corinth."

In the *Home Words for Jerusalem* Dr. Wheeler gives the following account of the work for the quarter ending 30th September:—

"The number of admissions into the Hospital has been high, over 500 having been admitted during the three months. Malarial fever, with the diseases resulting from it, has been specially active this season, and the amount of quinine used to combat it has been very great, exceeding 200 ounces. . . . Malaria being a preventable disease, we have done our best to tell the people this, and have explained in printed notes (in three languages) the best means and the simplest, to destroy the larvae of the mosquito that carries the parasite. We have been specially free from any epidemic this season. Severe ophthalmia has visibly diminished, owing to the cases being treated early and preventive precautions being used by the more intelligent portion of the population.

"The number of operations are steadily increasing as the fear of the 'Cherem' or curse is abating, and the people are beginning to appreciate the value of scientific surgery. We have had frequently to refuse admission into the Hospital for lack of beds and cots. The number of patients from the outlying colonies have also increased. That the nursery staff and dispensary staff are busily engaged is shown by the following statistics:—In-patients, 500; out-patients, 4,405; home visits, 1,580; dressings, 7,915; prescriptions, 9,934; receipts, 19,634.

"We are glad to welcome back Dr. and Mrs. Masterman and family from Safed, where Dr. Masterman has been working during Dr. Anderson's absence in England on furlough."

Dr. Masterman writes (*Home Words*):—

"It is remarkable how much of the northern shores of the Lake of Galilee have, within very recent years, passed into Roman

Catholic hands. There seems, too, every prospect of this long neglected land being developed and made as it once was, a garden of fruitfulness. The Franciscans have recently parted with a large slice of their extensive estate around *Telhûm* to an Italian Society, who are now establishing colonists upon the soil. Several houses are now in process of construction on a hill to the N.W. of *Telhûm* —a site much more sanitary than the fever-infested lake shore. It is said that the Italian Government are assisting financially this colonization scheme. Adjoining this *Telhûm* estate is that belonging to the owners of the *Tabaghah* Hospice—a German Roman Catholic Society. Recently the Society has acquired a large slice of the "Plain" of Gennesaret around *Khan Minyeh*, including the ruins known as *Khurbet Minyeh*. Another Roman Catholic Society, also German, has lately acquired all the lands around *el-Mejdel* (*Magdala*), at the other end of the "Plain of Gennesaret." This rich and well watered area includes the well-known *Ain el-Medawwerah* and also the springs and gardens near the mouth of the *Wady Hamâm*. The remaining middle section of the plain, watered by the streams of *Wady el-Rubudêyeh* and *Wady el-Amûd* remains in the hands of the *Samûreh* Bedawin, though they have mortgaged a share of their property to a wealthy Kurd."

"Professors Kohl and Watzinger, who did such successful work at Baalbec, are now once again in the land endeavouring to complete their examination of the synagogues of Galilee. During October they spent a week at *Kerazeh*, the ancient Chorazim, and thoroughly examined the remains of the synagogue. The ruins are of hard basalt and much of the sculptured stones which they were able to unearth are in a wonderful state of preservation. Next to *Telhûm* this appears to have been the finest of the old synagogues. Most of the pillar-bases were found *in situ*. The most remarkable thing about these remains is the great number of animal and even human figures which occur among the sculptured designs. In most of the ruined synagogues these have been deliberately destroyed in many cases subsequently to the ruin of the synagogue itself, but at *Kerazeh* many of the stones were covered up at the time the building fell and these figures remain uninjured. The Professors hope to obtain permission to complete the needed investigation at *Telhûm*; they have just left here for Petra."

The Rev. J. E. Hanauer of Jerusalem writes (Nov. 7th) :—

"On the right-hand side of the Jaffa road, at a distance of from 800 to 900 feet from the gate, just opposite and across the second re-entering angle in the city wall, and between the contour lines 2,574 and 2,555, including 2,565, a row of large shops has been built during the past summer. The front walls of these shops are flush with the roadway, and founded on rock lying close to the surface; but the back walls, about 30 feet nearer the town wall, have been laid in rubbish, no rock having been struck, though the excavations for foundations went down to the depth of 14½ to 16 feet. This would seem to show that the ancient rock-hewn trench at the north-west corner of the town extended in this direction.

"Yesterday, at the invitation of Mr. Spyridonidis, I had an opportunity of visiting the caves now existing underneath the new Greek Hospice and bath recently built on the site of the older bath, which till a year or two ago stood just inside the St. Stephen's Gate, and connected, as I remarked in former notes, with a legend of Belkis. These caves are excavated in the very soft *nari* rock. As they have confessedly *been slightly altered* since their discovery, it is very difficult to tell what is new and what ancient. The most noteworthy feature is what seems to be a portion of an aqueduct or rock-cut drain running eastwards but blocked with masonry.

"Inside the Golden Gateway, on the south wall, about 3 feet eastwards from the western pilaster, and about the same distance from the ground, are very distinct traces of old square Hebrew lettering. As I have no time to devote to this inscription (?) or graffito, which is possibly unknown as yet (?), I shall call Mr. Macalister's attention to it when I next meet him. There is another Hebrew graffito (first pointed out to me by A. Mitchell, Esq., of the C.M.S. College) on one of the stones in the great string-course, at the end close to the Double Gate."

Our attention has been called to the fact that the references to Murray's *Guide to Palestine*, *Q.S.* July, p. 232, do not apply to the latest and improved edition of 1903 which supersedes previous editions.

"Golgotha and the Holy Sepulchre," the last work of the late Major-General Sir Charles Wilson, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D., etc., is now ready. In this work the late Chairman of the

Executive Committee of the Palestine Exploration Fund has brought together for the first time all the evidence which the most exhaustive research enabled him to collect bearing on the subject of these Holy Sites; and probably no man living had at once so intimate a knowledge of all investigations in the modern Jerusalem and so complete an acquaintance with what has been written about the Sites from the time of Constantine onwards. The price of the work (demy 8vo) is 6*s.*, by post 6*s.* 4*d.*, and cheques should be made payable to the order of George Armstrong, Acting Secretary to the Fund, and crossed "Coutts & Co."

The first edition of Mr. Macalister's work, "Bible Sidelights from the Mounds of Gezer," is already sold out, and a second edition is now on sale. It has been written to show how the results of digging in Palestine should appeal not only to the scientific anthropologist or archæologist, but also to the Bible student who has no special interest in these sciences. The book contains a brief synopsis of the work of the Fund from its foundation to the present and a description of the site of Gezer, and its history. Price 5*s.* 4*d.*, post free.

The *Painted Tombs of Marissa*, recently published by the Fund, is now recognized as a very important contribution to the history and archæology of Palestine in the last centuries before our era. It may be mentioned that the leaflet containing the result of the investigations by Mr. Macalister at the Tombs has been published, and can be had on application to the Acting Secretary by those who possess the volume.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers. Those which are sent by Mr. Macalister, illustrating the excavations at Gezer and which are not reproduced in his quarterly reports, have been held over for the final memoir.

The attention of subscribers and others is called to *A Table of the Christian and Mohammedan Eras*, from July 15th, A.D. 622, the date of the Hejira, to A.D. 1900; price by post, 7*d.* Also to the *Meteorological Observations at Jerusalem*, with tables and diagrams by the late

Mr. James Glaisher, F.R.S. Tourists and all desirous of accurate information about the climate of Jerusalem should not fail to send for a copy, price 2*s.* 6*d.*

The attention of subscribers is also called to a work by Sir Charles Warren, entitled "The Ancient Cubit and our Weights and Measures." He brings evidence to show that all weights and measures (except those of the metrical system) are derived from one source—the double-cubit cubed of Babylonia.

The Museum and Library of the Palestine Exploration Fund at Jerusalem are in the Bishop's Buildings, near the Tombs of the Kings, where the use of a room has been kindly permitted by the Rev. Dr. Blyth, Bishop in Jerusalem and the East. The Museum is open daily, except Sundays, and the Honorary Secretary, Dr. D'Erf Wheeler, will give all information necessary.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s.*

The income of the Society from September 23rd to December 19th, 1907, was—from Annual Subscriptions and Donations, including Local Societies, £626 11*s.* 10*d.*; from sales of publications, &c., £88 19*s.* 5*d.*; from Lectures, £2 8*s.* 5*d.*; from Deposit, £500; making in all, £1,217 19*s.* 8*d.* The expenditure during the same period was £952 2*s.* 1*d.* On December 19th the balance in the bank was £348 13*s.* 1*d.*

Subscribers who have not yet paid will greatly facilitate the Committee's efforts by sending their subscriptions in early, and thus save the expense of sending out reminders, as the outgoings on the excavations at Gezer will be a heavy drain on the funds. The special donations during the quarter have been received from:—

Walter Morrison, Esq., Hon. Treas. ...	£20	0	0
Col. Hope-Edwardes	£10	0	0
H. C. Wilson, Esq.	£10	0	0
James Melrose, Esq.	£5	0	0

Subscribers to the Fund are reminded that, whilst the receipt of every subscription and contribution is promptly acknowledged by the Acting Secretary, they are now published annually, and not quarterly. A complete List of Subscribers and Subscriptions for 1906 was published with the April number.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries.

Miss Mary A. Wright, sister of the late Hon. Secretary, of the same address, has kindly consented to act as Hon. Secretary in U.S.A. for the present, and is so authorized by the Committee.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Miss Mary A. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

Subscribers and others may be reminded that the new Raised Map of Palestine, constructed from the Surveys of the Palestine Exploration Fund by the Acting Secretary, is ready. It is on the scale of $6\frac{1}{4}$ miles to the inch and measures 3′ 6″ × 2′ 6″. It has already been used with great success by Professors of Old Testament history, and by teachers in Sunday Schools, and may be especially recommended for large classes of students. On view at the office of the Fund ; further particulars may be had on application.

In order to make up complete sets of the *Quarterly Statement*, the Committee will be very glad to receive any back numbers which subscribers do not wish to preserve.

A complete set of the *Quarterly Statements*, 1869–1905, containing the early letters, with an Index, 1869–1892, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Acting Secretary, 38, Conduit Street, W.

Subscribers of one guinea and upwards will please note that they can still obtain a set, consisting of the "Survey of Eastern Palestine" (Colonel Conder) ; "Archæological Researches in Palestine," in two volumes (Clermont-Ganneau) ; "Flora and Fauna of Sinai, Petra, and the Wady 'Arabah" (Hart), for £7 7*s*., but the price has been increased to the public to £9 9*s*. The price of single volumes to the public has also been increased. Applications should be made to the Acting Secretary.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 38 Conduit Street, W.

The Museum at the office of the Fund, 38, Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

Photographs of the late Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area and Justinian's Church, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. The four photographs, with an explanation by Dr. Schick, can be purchased by applying to the Acting Secretary, 38, Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced prices.

The Committee acknowledge with thanks the following :—

ΝΕΑ ΣΙΩΝ, July–August, 1907.

"Échos d'Orient," September, 1907.

"Jérusalem : Publication Mensuelle Illustrée," Oct., 1907. ("Kariet el-Enab and the sanctuary of the Ark," by A. de P. ; &c., &c.)

"Al-Mashrik : Revue Catholique Orientale Bimensuelle." ("Wakidi's history of the conquest of Syria," by Elian Sarkis ; &c., &c.)

"Recueil d'Archéologie Orientale," by Prof. Clermont-Ganneau. Tome VIII, Livr. 6–9 : § 11*b*. The patriarch Eustochius of Jerusalem. § 14. Two archaic Israelite inscriptions from Gezer. § 20. Jewish-Aramaic papyri and ostraca, &c., &c.)

"Palästinajahrbuch ; sonderabdruck 'die geographischen Verhältnisse des Menschen in der Wüste Juda,'" by Dr. V. Schwöbel.

"The International : a Review of the World's Progress." Vol. I, no. 1.

"New Guide to the Holy Land." With 23 coloured maps and 110 plans of Towns and Monuments. From the author, Father Barnabas Meistermann, O.F.M.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

For list of authorized lecturers and their subjects, *see* end of the Journal, or write to the Secretary.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

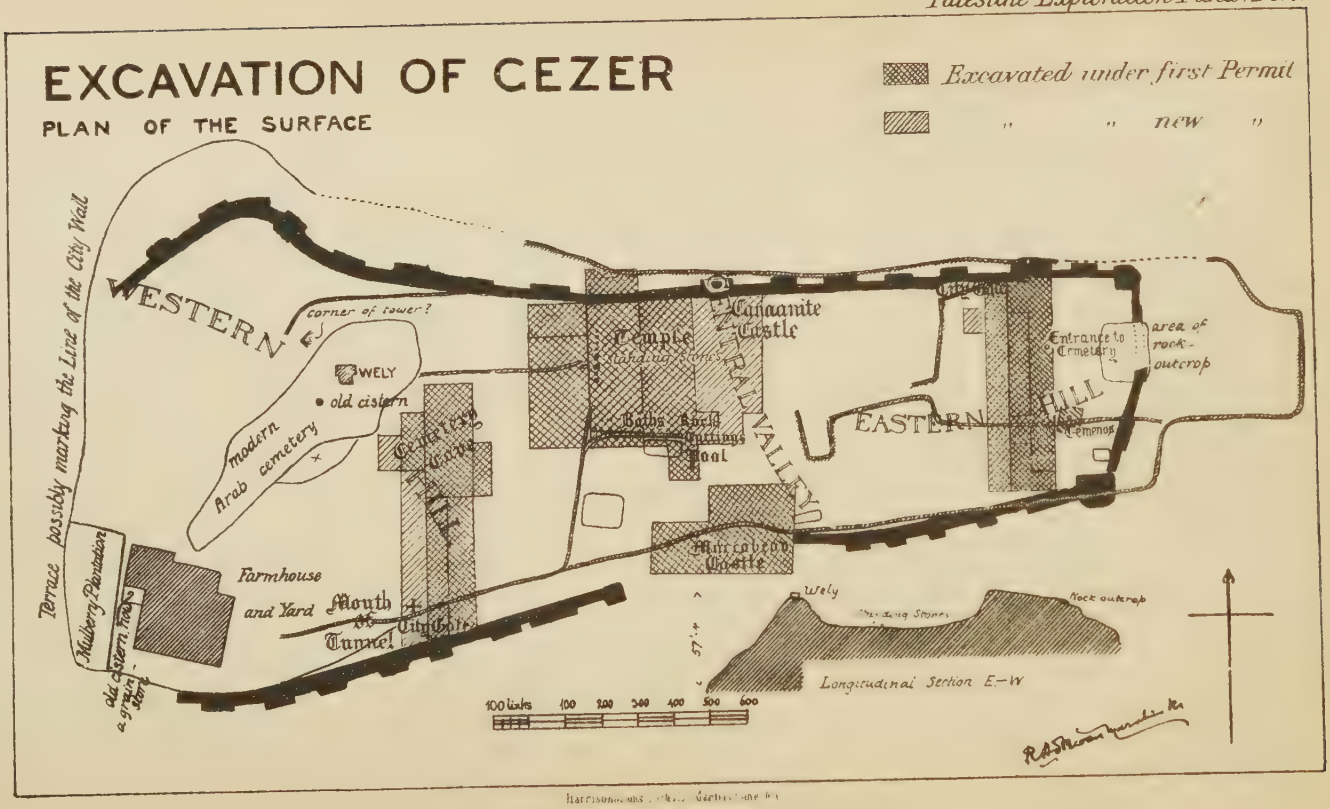
Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of _____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge to my Executors.

*Signature*_____

Witnesses {
_____
_____
_____
}

Note.—*Three Witnesses are necessary in the United States of America. Two suffice in Great Britain.*


EXCAVATION OF CEZER
PLAN OF THE SURFACE
Excavated under first Permit
" " new "
WESTERN
corner of tower?
WELY
old cistern
modern Arab cemetery
Cemetery Caves
Terrace possibly marking the Line of the City Wall
Mulberry Plantation
old cistern
Farmhouse and Yard
Mouth of Tunnel
City Wall
Temple
Canaanite Castle
Baths
Rock cuttings
Pool
Mercavod Castle
KIDRON VALLEY
City Gate
Entrance to Cemetery
area of rock-outcrop
EASTERN HILL
Tomb
Wely
Rock outcrop
Standing Stones
Longitudinal Section E—W
100 links 100 200 300 400 500 600

SIXTEENTH QUARTERLY REPORT ON THE EXCAVATION OF GEZER.

Third of the Second Series.

11 *August*—9 *November*, 1907.

By R. A. Stewart Macalister, M.A., F.S.A.

Gezer has this quarter excelled itself. For about a couple of months after sending off the last report the results of the work were not more than ordinarily interesting, and I was beginning to fear that the new report would not be up to the standard of some of its predecessors, when a discovery was made which ranks in interest and importance with the best things that the mound has so far produced. Indeed one competent visitor to the excavation has pronounced it as far surpassing even the High Place in suggestiveness.

The excavations this quarter have been confined to the Western Hill, a new trench having been dug west of that containing the city gate. As it happened, in the whole length of this trench not a single cistern was found—a fact on which the foreman and I congratulated ourselves; for though it is most important to empty out all cisterns, meagre though the finds in the majority of them may be, it must be confessed that they are a terrible hindrance and complication to the work. They prevent one following out the logical process of casting earth from one trench into the preceding, as, of course, while men are at work in them earth cannot be thrown anywhere near; and they themselves contribute an extra quantity of earth, the disposal of which is often a serious problem.

So, as the work advanced in the trench, and stage by stage was passed, we felt much satisfaction that no cistern-shafts made their appearance. Another strange phenomenon gave food for speculation

as the excavation progressed at the south end; that below the level which contained sherds of the great period of Mycenaean and Cypriote trade—say 1450 to 1200 B.C.—there were no walls whatever. Instead, we had to cut through some six or eight feet of a solid alluvial silt which contained nothing but stray fragments of pottery, and a few scarabs and such objects. All of these belonged to the same period of culture as that just mentioned.

Thus, before having any idea of the discovery awaiting me, I was able to infer that up to about 1450 B.C. there had been a slop-land at this point inside the city walls; that no houses were built there; that probably rubbish had been thrown there; that certainly water had accumulated there in large quantities; and that, after that date, the soil had become dry enough to bear houses, which were then built. It is not quite accurate to say that there were absolutely no traces of construction down to the rock, for on the surface of the rock were a few meagre scraps of very early First Semitic walls, with the characteristic pottery; but these for the present may be neglected.

The explanation of the existence of this waste land in the middle of a crowded city had to be sought. I continued the digging with some apprehension, having visions of a great reservoir, like the immense pool in the middle of the hill, the clearance of which had occupied six months under the first permit. When we reached the rock, the edge of a scarp made its appearance, and seemed to justify these apprehensions.

A few hours' work was enough to show that in the rock was sunk a large pool (Fig. 1), or what appeared to be such, shaped something like a keyhole in outline, the broader end being to the south. With a little further clearance steps were found, much broken, occupying the narrow end. The sides of the pool were vertical, and did not appear at first to expand or contract downwards, but after a couple of days, evidence of an extension eastward made its appearance, and soon a hole was opened in that side of the pit into which it was possible to creep.

The hole was found to lead into a passage, sloping downwards for an unknown extent at a sharp angle. As the earth with which it was filled almost to the roof was soft and powdery, and poised at the angle of limiting friction, considerable risk was involved in attempting to descend the passage. The danger was two-fold—the earth below might slide down, possibly precipitating the unwary

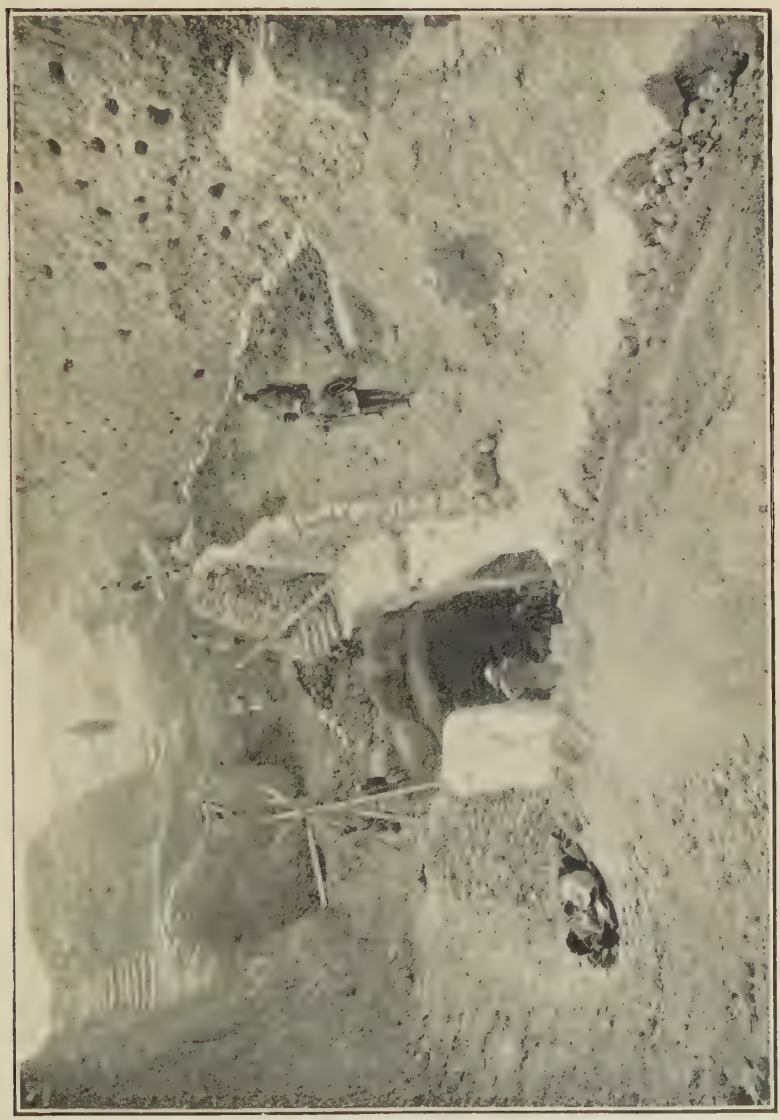


FIG. 1.—ENTRANCE TO THE TUNNEL (FROM THE NORTH).

explorer into a cess-pit or cistern, or the earth above might be loosened and come down in an avalanche upon his head.

My first idea was that I had opened an elaborate sewer. The explanation was not wholly satisfactory, though to some extent the condition of the earth above, as above described, lent some colour to the hypothesis. The difficulties in the way were considerable, however; such a drain (evidently at least as large as some of the main drains under London) could serve only a very small area of the city: and the hypothesis implied that the Canaanites were far more advanced in sanitary civilization than we have had reason to give them credit for.

This first examination of the tunnel revealed the interesting fact that flint tools had been used in its excavation. The marks were well preserved on the walls, so far as they were visible, and on the roof, and they displayed the well-marked teeth that the chipped edge of a flint knife leaves in the soft rock surface. It will be remembered that similar marks were noticed in the great cave under the Troglodyte Place of Sacrifice, discovered some years ago.

The men working in the tunnel were divided into two groups; one to take the loose surface earth off the silt filling the tunnel, the other to deepen in the entrance pit and ascertain the depth and the nature of the floor.

As the work continued it became more and more evident that the "sewer" theory had to be abandoned. The more the earth was cleared out the greater the tunnel appeared to be, and soon it was obvious that it was larger than any sewer ever made in the world. A happy recollection of the tunnels by which the town of Kerak is entered suggested another theory that seemed more plausible; namely, that this was a very ancient entrance to the stronghold of Gezer, and that the tunnel would be found to slope down to the level of the base of the hill, and open out at some place in the surrounding valley. The steps at the top of the entrance, above referred to, seemed to fit in with this idea; and I was interested to notice that, after the second step, they had been broken, apparently with intention, as though to prevent enemies who had discovered the lower entrance from climbing into the city.

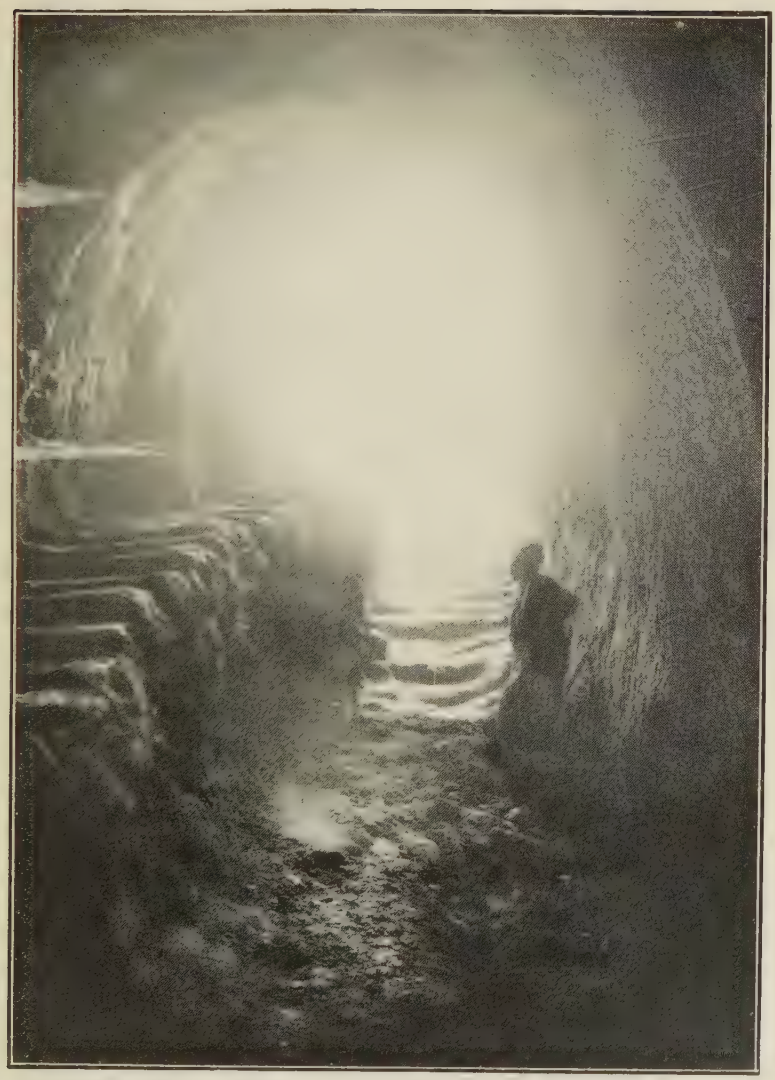
The test of the theory of course would be if steps were found continuing down the floor of the tunnel; and it was with considerable satisfaction that I saw, when the earth was at last cleared out, and the rock floor of the tunnel exposed, a well-cut flight of steps

running down it occupying its whole width, whose much-worn and broken condition testified eloquently to long-continued and heavy traffic.

There still remained the question of its destination. Having decided that this was probably the original purpose of the tunnel, I determined to make one more effort to explore it to its end, partly in the hope of finding the probable whereabouts of a lower exit, the discovery of which would enable me to expedite the work by attacking both ends at once, and partly to forestall any possible thieves who might make a night raid on the excavation. For I had also in mind the possibility that the tunnel might lead down to a system of catacombs, where there might or might not be rich deposits.

I found that the passage runs downward at a steep angle for a considerable distance, and in a direction more or less due east; that it then becomes horizontal, with a slight turn to the south (which is what we should expect if it be meant to open out in the valley); and that after running for some distance thus, it ends (at present) in a very large chamber. In this preliminary visit I did not bring a tape with me, so am unable at present to give the dimensions of the chamber; it seemed to measure about forty feet by thirty, but such eye-estimations of the size of underground chambers are notoriously untrustworthy.

The whole of the excavation is full of earth and stones; indeed at one part of the horizontal section of the tunnel it seemed impossible to pass through at all; and in the large chamber at the end the floor is so cumbered with debris (principally fragments shaken by earthquakes from the roof) that it was impossible to stand upright in any part of it. I am, therefore, at present unable to say what, if any, further extension of the system may lie beyond this chamber: if there be any doorways in its walls they will be revealed in good time, when the workmen reach them. That, however, will not be for two or three months yet, if so soon. But I cannot feel satisfied that there would be so much traffic on the steps, such as their worn condition indicates, merely to enter this chamber—unless, indeed, it be a much frequented sanctuary, in which case yet more interesting discoveries may await us when we come to examine it. I still think that the most likely theory is, that we have in this great engineering work a means of entrance and exit to the city.



Subterranean Gallery at Gezer.

A minor limit of date is afforded by the objects contained in the silt that had penetrated into the excavation. This, of course, must have been allowed to fall in after the tunnel had gone out of use. These objects all belong uniformly to the dates given above—*i.e.*, about the Tell el-Amarna epoch, or a little later. It is not extravagant to assume 500 years as the time required for the steps to get into the condition in which we find them; so if we fix 2000 B.C. as a date for the excavation of the tunnel, we shall have a working hypothesis which, so far as the present state of the investigation permits us to judge, fits in with all the indications.

In any case, the rock-cutting must be very old, and this indicates that there is no inherent improbability in assigning a remote date to the great rock-cuttings of Beit Jibrin, to which it is not inferior either in design, magnitude, or execution. It is difficult to describe this entirely unexpected addition to our knowledge of ancient Gezer without appearing to exaggerate: it has to be seen for its full imposing effect to be appreciated.[1]

Coming now to details, so far as the excavation has hitherto revealed them, we have at the entrance a hollow in the rock, 34 feet 6 inches in length along its western side, which is a straight perpendicular scarp, 7 feet 5 inches broad at the northern end, 14 feet 6 inches broad at the southern. In the middle of the edge of the southern side is a semi-cylindrical niche, 2 feet 8 inches deep, and 5 feet across; it bears a singular resemblance to the *mihrab* of a mosque. It will be seen between the two cranes in fig. 1. Some holes, like put-log holes, and, still more, a rebating of the east and west sides of the pit, as though to receive the foundations of walls, seem to indicate that a building of some sort was erected over the hollow, of which, however, no trace remains. That some protecting wall would be built to prevent persons falling into the pit may be taken for granted. The floor of the pit is entirely occupied by a flight of steps, cut in the rock, starting from the northern side; the steps run southward for the length of the narrow part of the pit, and then turn eastward. All the southward running steps, except the two uppermost, have been broken away with intention, The pit reaches a maximum depth, on the lowest step (which is also the first step of the series inside the tunnel), of 26 feet 6 inches.

[1] I much regret that my attempts to secure a flash-light photograph of the interior should, so far, not have been very successful: I hope to be able to present such a photograph with the next report.

The entrance to the tunnel is by an imposing archway, 23 feet high and 12 feet 10 inches across, cut in the rock. These dimensions are, generally speaking, maintained throughout its length, so far as its clearance has been carried. At the point where the excavation has at present reached—about 60 feet from the entrance—they appear to be decreasing. The roof is cut to a barrel vault, and the sides are cut well plumb. The whole floor is occupied by steps, which are much worn and broken. Indeed, towards the end of the time when the tunnel was in use, they seem to have been regarded as dangerous, for small hollows are cut at intervals in the sides just large enough, and of about the right height, to serve as hand-grips.

The angle at which the tunnel descends, as estimated by an Abney level, is 38° to the horizontal.

At 47 feet 5 inches from the entrance a well-cut archway is made in the upper part of the tunnel, ending abruptly about 5 feet above the adjacent step. The archway has a reveal of 6 to 8 inches on the outer side; on the inner side it dies gradually into the wall of the tunnel. There is a second archway about the same distance farther in, but this has not yet been reached in excavation, and only the top is visible. These two archways divide the oblique portion of the tunnel into three approximately equal parts.

On the sides, especially in the upper parts, are a number of square holes in the rock. These look like put-log holes for scaffolding, which they possibly are; they may also have been cupboards made by the workmen for holding tools and other property during the prosecution of the work.

For the present the description of this unique engineering work must be left at this point.[1] Whatever developments its further examination may reveal will be noticed in the next report.

The objects found in the tunnel were of minor importance, and need not at present detain us: potsherds, fragments of horn, flints, and the like. One of the common "Astarte-plaques" was found inside it, and a foot or two below the entrance was found a rather rarer object—a mould for their manufacture.

There is, however, one "find" that deserves to be recorded (fig. 2). This is a cake of clay on which a basket of straw had evidently, at some time, been laid. The clay has preserved the

[1] See, now, the postscript.

impression and shreds of the outer surface of the straw. The basket seems to have been made of a single rope of straw about a quarter-inch in diameter, twisted round into a spiral. The end of the rope is plaited in and out through the adjacent whorls of the spiral—it can be traced to the fifth whorl. One or two ill-defined grooves, radiating outwards from the centre, suggest that the whorls of the spiral were kept in position by being passed through loops of a string or thread. The basket had a base slightly convex externally, unlike the modern baskets used in transporting earth in such work as this excavation. These run up in a cone, like the bottom

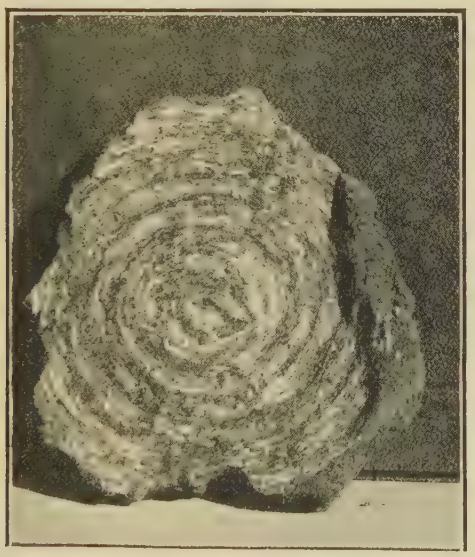


FIG. 2.—CLOD OF EARTH, WITH IMPRESSION OF THE BOTTOM OF A BASKET.

of a wine bottle, when new, though they rapidly flatten with use. The radius of the bottom of the old basket was about $2\frac{1}{2}$ inches, but the centre of the spiral was not precisely in the centre of the base. The sides then turn up sharply; but here we reach the edge of the clod, and can glean no further information. The peculiar interest of this object lies in its giving us indirect information on a technical point—the making of straw baskets—concerning which direct information can never be expected, owing to the perishable nature of the material involved.

Miscellaneous Objects.

As hinted at the beginning of this report, no constructional remains of special interest were found during this quarter, and the harvest of antiquities was, if anything, a little below the average in interest. Such few things as call for notice may be considered together in one section.

I. One of the historical problems on which light might be expected from the Gezer excavations is the name of Solomon's Egyptian father-in-law, which at present can only be selected by guess from among a number of his contemporaries. The plaque of terra-cotta here figured (fig. 3) is, therefore, in such a connection, peculiarly tantalizing. It was found in just about the right level, and evidently bears part of the royal cartouche. Unluckily it is all

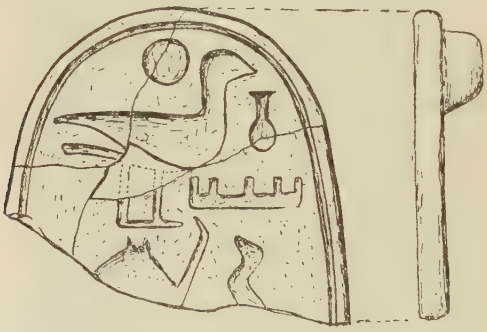


Fig. 3.—Plaque of Terra-cotta, with Egyptian Inscriptions.

broken away except the conventional title *s'*, *R'*, which tells us nothing, and some other symbols insufficient to identify the royal name; at least I cannot see my way to do so. The characters broken across at the fracture are, to me, unintelligible. The object is not only imperfect, but is itself broken into five pieces, one which is missing. It measures $2\frac{1}{2}$ inches top to bottom by $2\frac{3}{4}$ inches across at the fracture; it is $\frac{3}{8}$ inch thick. There is a knob or foot at the upper end of the back, as though to attach it to a wall or other vertical surface; this also is broken across, otherwise the back is quite plain.

II. Of far greater interest, however, is the object represented in fig. 4. This was found in a deep stratum associated with remains

dating about 2000 B.C. Unhappily it is much broken, and only part of the object could be recovered; enough, however, remains to show that it was a pottery model of a shrine. It is made in hard homogeneous ware, black in the middle of a fracture, and of a light reddish tinge near the surfaces, and the whole is coloured with a cream-coloured slip. In the illustration, the lower drawing is a perspective sketch of the object in its present state, the upper drawing is a suggested restoration of the façade. These drawings have been made with the aid of a camera lucida, and accurately repeat the object.

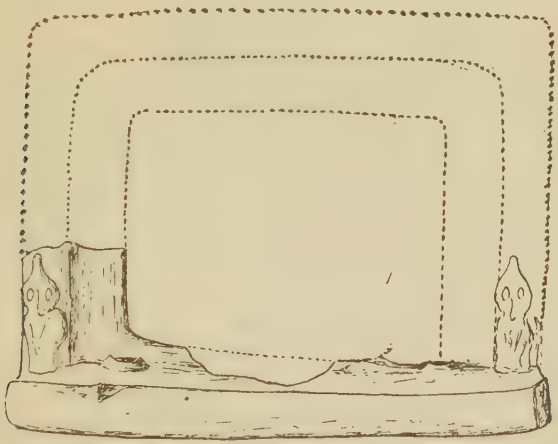


FIG. 4.—MODEL OF A SHRINE.

The "shrine" itself has gone save for some insignificant fragments of the walls and floor Separating it from the open forecourt is a doorway, which has been about 8 to $8\frac{1}{4}$ inches in breadth. The sill of this doorway is raised half an inch above the level of the forecourt and $\frac{5}{8}$ inch above the level of the floor of the shrine. The section of the sill is triangular, the apex being rounded. The forecourt measures 12 inches in length (across the front of the façade), $4\frac{1}{4}$ inches in width. It is a slab of pottery $\frac{7}{8}$ inch thick. The vertical edges are rounded.

There is, of course, no evidence as to the height of the entrance doorway or the roofing of the "shrine."

The jamb of the doorway is $2\frac{3}{4}$ inches broad, and is intercepted by a moulded ridge running up about the middle of the face of the

jamb. On the outside of this there is, in the surviving part, a quaint, seated figure, the front and side aspects of which are shown in enlarged drawings in the figure (fig. 5). It seems to be wearing a high peaked cap. The face is remarkable for its prominent rounded nose; the eyes (as is so often the case of early human and animal figures found in Palestine) are separately moulded pellets. The lower part of the face is quite overshadowed by the nose. The ears are large and prominent. The figure is seated with its hands

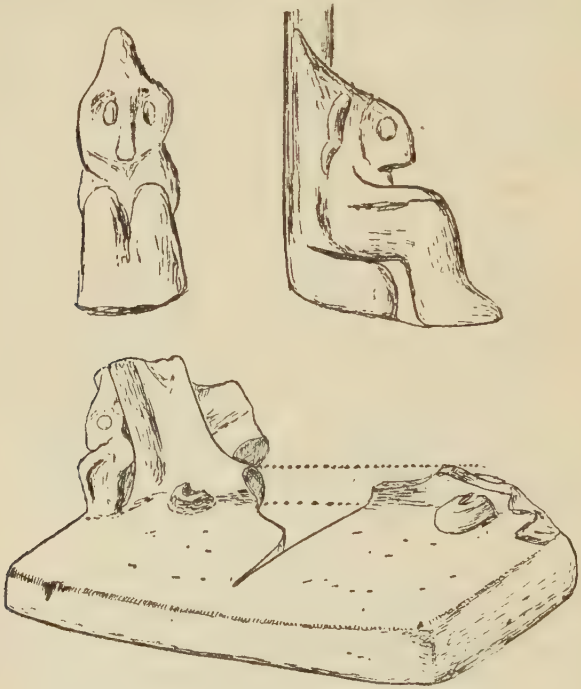


Fig. 5.—Seated Figure on the Shrine.

on its knees. Except the cap, the modelling is not definite enough to show anything of the costume of the figure, or even if it be meant to be undraped.

A fracture in the surface of the forecourt shows that a precisely similar figure was placed in the corresponding position on the opposite side. This is sketched in in outline in the restoration.

On the inner side of the moulding against which the figure is seated, and just under the corners of the door, there are two vats or

stoups, one on each side. These are $\frac{1}{4}$ inch high, a little more than semi-circular, and about 1 inch in diameter. They represent libation vessels, or possibly lavers for ablutions.

This remarkable object enables us to form a conception of a Canaanite covered temple (as distinguished from an open-air High Place), such as excavation may yet at some time bring to light.

III.—It may be recollected that on the top of the brick tower that formed the west jamb of the southern gate a number of curious pottery figures were found, consisting of birds and pomegranates mounted on rings, and the like. The most important of these are illustrated in the plate facing p. 219 of the *Quarterly Statement* for 1904. It almost seems as though there were here living a potter

Fig. 6.—Grotesque Pottery Figure.

with what may be described as a talent for freakishness, for several other objects of the same genre came to light in the southern end of the new trench.

The most remarkable of these is here illustrated (Fig. 6). It is the head and shoulders of a human figure. Through the chest is a hole, doubtless to allow the object to be suspended on a wall by means of a peg driven through it. It is in a light reddish ware, covered with a fat cream wash. Two holes have been made in the surviving portion, one on the back, the other under the chin, to allow the steam to escape while firing. The figure is wearing a flat head-dress, not unlike the modern "Tam o' Shanter" cap, with a braided rim, and with six ribbons streaming behind. Unlike most "household gods," under which general heading the figure must,

I suppose, be classified, it is male, as indicated by the moustache and short beard: the former is almost worn away (by kissing?). Such representations of the hair of the face are exceedingly rare in figures found here: as I write I can recall no other instances, with the special exception, of course, of the side-whiskers with which Bes is generally endowed. The eyes are conical protuberances: on the apex is a round dot to represent the pupil, around which is a black circle for the iris. The brows are continuous across the nose. Down the ridge of the nose runs a red line. The curved outline that the nose at present presents is due to a fracture of the tip: the dotted line in the side view shows approximately its original outline. The red colour with which the lips were no doubt emphasized has disappeared: indeed the cream-coloured paint (which was added after firing) has itself disappeared from this region of the face. The tongue is protruded, and also seems to have been coloured red. On the neck is a chain of seven pendant beads, apparently meant to represent those in use in Egypt under the XVIIIth dynasty, to the period of which the figure is to be assigned. Some red lines on the shoulders are apparently meant to indicate the folds of a cloak resembling the modern *'abba*. The figure, in spite of its grotesquerie, has a singularly life-like appearance; the artist was superior to most of his local contemporaries in his power of representing the human form.

Concluding Note.

By the time this report is in its reader's hands, the first of the two years of the Permit will be drawing to its close. It has been, so far, a fruitful year. The Canaanite castle, the "Philistine" graves (with their valuable indications of Aegean trade), the Roman bath, such smaller objects as the stone altar, the zodiac-tablet, and the model shrine described in the present report, are in themselves almost sufficient to compensate for the continued absence of written documents: to say nothing of the great rock-cut tunnel just come to light. If during the four months that, at the moment of writing, still remain of the exploration year the results continue at the same average level of interest, the Society will have every reason to congratulate itself on its decision to return to Gezer rather than to attack another mound.

May I, however, before I close, call special attention to the map prefixed to this report, which shows the present condition of the

excavation? It will be seen that there are large areas as yet untouched within the walls, anywhere in which *the* prize of the excavation may lie hidden. A difference of 5 feet in the position of a trench would have caused us to miss the Troglodyte Crematorium, described in the first report, with its valuable information on the early inhabitants of Palestine. With a difference of 20 feet the tunnel described in this notice, which promises to be one of the most important discoveries so far made here, would have remained unknown. When I say that on the map in question a length of 20 feet is represented by about $\frac{1}{16}$ inch, it will easily be seen how near we might go to something of great value and yet miss it altogether.

Nothing but turning over the whole mound will assure us that we have missed nothing. Now, at the commencement of a new year, which will also be the last of the Society's work at Gezer, may I make a final appeal for means to enable me at least to go as near the ideal as possible? The average expenditure at present is £100 per month, which includes not only labour, but also salaries, camp expenses, and other necessary items of outlay. As the latter are fixed, every addition to the expenditure is laid out on wages only. Thus with £100 a month I can employ about eighty labourers: with another £50 I could employ between fifty and sixty more.

In the Annual Report for 1906 I count the names of about 1,450 subscribers, of whom some 600 subscribe under £1. If half the latter would for this year double their subscription, the extra labourers could on that extra gift alone be kept going for about three months. If 1,000 of the subscribers could each induce one friend to give a guinea, it would, I think, be possible to wrest all the secrets that this ancient city still has to tell to the world.

Postscript.

The continued excavation of the tunnel has resulted to-day (30th Nov., 1907) in the discovery of a powerful spring of water at the bottom, which is, no doubt, its primary *raison d'être*. At the moment of writing, in haste to catch the *Quarterly Statement* before it goes to press, there are still some unanswered questions. But at present it appears as though the excavation is less important than its imposing nature at first gave grounds to expect.

COMMUNICATIONS ON THE "ZODIAC-TABLET" FROM GEZER.[1]

1.—From the Rev. C. J. Ball.

One naturally feels very diffident of expressing any definite opinion on the remarkable fragment of antiquity discovered and described by Mr. Macalister. Of course, an object found in a deposit of the Tell el-Amarna period does not necessarily belong to that period. It *may* be of far earlier origin. My immediate impression, on first looking at the photograph, was: Here is what may prove to be a primitive Babylonian relic: an impression which was certainly not weakened by closer examination of the symbols.

The fish with three fins, two dorsal and one ventral (see the photograph), is practically identical with the old linear Babylonian ĠA, KU, "fish"; and the bird with the "egg" under its tail presents a striking likeness to the Babylonian ideogram MUD, "to bear," "to beget," composed of the character MUSHEN, "bird," above DUG (see Thureau-Dangin, No. 36). In fact, more or less plausible parallels for some fifteen of the nineteen figures here portrayed may be adduced from the Babylonian writing. Is it possible that this curious document preserves some of the primitive pictographs from which the Babylonian linear characters were developed?

As a whole, no doubt, this seal-device reminds us of the emblems of the gods displayed on Babylonian boundary-stones (see my *Light from the East*, p. 148 *sq.*), where the Crab seems to be represented by a tortoise. I can see no resemblance to either in the "distorted creature" above the "ibex" here. It looks to me like a bird, just

[1] See also below, p. 78.

To face p. 26.

THE "ZODIAC-TABLET" FROM GEZER.

alighting (see the photograph), and appears to be very similar to the Egyptian *ḥn* (see Erman, *Gram. Table of Signs*, G, Birds, No. 75). There are several bird-forms among the Babylonian characters, *e.g.*, MUSHEN, RI, NAM, and DAR (see Thureau-Dangin, 33, 34, 40, 42, 548), besides compounds.

The "tree"—I think it such, because the "amphora" leans against it—may perhaps be the archetype of the linear Babylonian character NUN, "great."

2.—From the Rev. C. H. W. Johns.

This is an important contribution to the study of the ancient astral religion. Mr. Macalister is to be congratulated not only on his discovery, but on the very clear and helpful drawing he gave of it, and on the extremely judicious description. Undoubtedly, many of the figures recall the strange signs on the Babylonian boundary-stones, usually called *kudurrus*. I quite agree that the impression was probably made by rolling a cylinder-seal over the clay. Many of the signs recall figures on the cylinder-seal impressions published, for example, in the great *Collection de Clercq*. These figures, like the signs on the boundary-stones, appear to be the emblems of different gods and are used to replace the full figure in many compositions. Whether they were all signs of the zodiac, at any rate in every case where they appear, is not at all clear to me. On some of the stones they seem rather to figure emblematically the gods invoked in the inscription to take vengeance on the landgrabber who should dare to remove, damage, or alter the boundary-stone or its purpose. In his *Aufsätze und Abhandlungen*, pp. 350–474, Professor F. Hommel subjected the representations on no less than 22 boundary-stones to a careful analysis and entirely supports their claim to be considered zodiacal. On the other hand, K. Frank, in his *Bilder und Symbole Babylonisch-Assyrischer Götter*, and Professor H. Zimmern, in his appended comments on the *Gottersymbole des Nazimaraltash-Kudurru*, regard these representations as emblems of the gods and not signs of the zodiac. The controversy is still open; but is far too extensive even to epitomize here. This tablet is one more piece of evidence.

Unfortunately, the figures are not in all cases clear. The ear of corn is certainly at this time used in the place of Virgo, assuming the figures to be the same as on the boundary-stones of the twelfth century B.C. The ladder-like object is frequently associated with the bull on seals, and if the emblems of the gods were used as signs of the zodiac we may expect, as does sometimes take place, one of the emblems of a god to be used alone. If this be the case here, the ladder would denote the sign Taurus. On the other hand, we may have in these pictures a native presentation of the signs, with local variations from the Babylonian types. On the whole evidence at present available it seems hazardous to affirm that it is a zodiac, though it may well be. It is not identical with any one of the representations on the boundary-stones, but they are never exactly the same. Hence, while very possibly of the Tel el-Amarna period, it may be much older. We lack definite dates for the changes and developments of the zodiac, if it is that, in Babylonia. All we can do now is to catalogue, register, and compare, awaiting fuller material.

What seems most significant is the occurrence on Palestinian soil of such a striking example of the kind of object which elsewhere is taken as evidence for the astral religion of Babylonia. This is evidence that, whatever the exact nature and purpose of the emblems, they are common to Babylonia and Palestine. There is, of course, the alternative to be considered, whether this tablet was not sent, or brought, direct from Babylonia.

3.—From Dr. Theophilus G. Pinches.

Mr. Stewart Macalister's description of it is excellent, and very suggestive. The signs in question have evidently been impressed—and very carefully impressed—from a cylinder of hard stone, or some other suitable material, in the clay when it was in a soft state, and it is on this account that we have (fortunately) no less than four repetitions of the subject, and part of a fifth. It may be mentioned that emblems which have been identified with the signs of the zodiac occur on many of the cylinder-seals found in Babylonia, but I know of nothing so complete as this.

The roughness of the work makes it difficult to identify the signs, in many cases, with certainty. If the horned animal on the

right of the ladder-like object be Aries, then it seems probable that some animal with long straight horns had been chosen to represent the sign. For the clumsy ribbed animal above, I should prefer the identification with Leo rather than with Taurus on account of the absence of horns, and the upward turn of the tail. The cross by the tail of the serpent probably stands for the Babylonian ✠, which represents Gemini. The "distorted creature" above the animal with the ibex-like horns (possibly Capricornus) suggests, both in the photograph and the wood-engraving, a bird something like a bantam, such as is occasionally found on Babylonian boundary-stones, in which case the question would arise whether this bird replaced the constellation Cancer in Western Asia. Nevertheless, it may be intended for something else.

What makes identification still more difficult is, that the signs seem to be arranged in no recognizable order, and, moreover, there are sixteen of them instead of twelve. This latter fact reminds us that the Babylonian signs of the zodiac are not all simple, but are in some cases composed of two united. Thus Taurus is associated with what is apparently "the Star" or "Constellation" *par excellence;* Gemini with "the Shepherd of the life of Heaven," and Pisces with "the Water-channel" (*ikû*). The sixteenth sign would imply that there was yet another compound constellation in use in the west.

It is worthy of note that the Babylonians seem not to have called the first constellation "the Ram," but "the Workman," or something similar, and it is just possible that this is represented by the ladder-like object with the pointed thing on the top. In that case, however, another identification would have to be found for the horned animal on the right, below.

Mr. Macalister is greatly to be congratulated on his discovery, and his excellent description of the impressions. It is to be hoped that he will find something which will throw light upon it.

4.—From Prof. Sayce.

"The Zodiac Tablet" discovered by Mr. Macalister is an object of the highest interest. I doubt, however, whether it is connected with the zodiac; some of the figures upon it bear no relation to the zodiacal signs, while figures that are zodiacal are wanting. But it

is quite possible that the cylinder is of an astronomical character, and that the figures upon it are intended to represent certain of the stars or constellations.

If so, it will be welcomed by the adherents of the school of astral mythology, since the figures centre in the sun and moon with the sacred tree and serpent on either side. The tree and serpent, without the sun and moon, recur in the same form on a stone monument from Northern Syria now in the Louvre; they are also found on the famous Babylonian seal-cylinder of "the Fall" now in the British Museum, as well as on a Persian seal published by Lajard and reproduced in Jeremias: *Das alte Testament im Lichte des alten Orients*, p. 105. The fish below the snake was a symbol of Ea, the god of Eridu, as was the snake itself. The scorpion below the sacred tree seems to be associated with the latter as the fish was with the snake. The object to the right of the inverted vase is a vase with its pyramidal lid on a stand. The tablet is a good deal earlier than the *kudurri* or Babylonian boundary-stones of the Kassite age, but the symbols of the gods found upon the stones may have their prototypes in the figures of the Gezer tablet.

THE BEDOUIN OF THE SINAITIC PENINSULA.

(*Continued from Q.S.*, 1907, *p.* 284.)

By W. E. Jennings-Bramley, Esq.

XX. *Peace and War—continued.*

The Grieg is an extensive open plain, cultivated by the Azazma, and for the four miles of its length it is difficult to find shelter. My man was strongly of opinion that the people whose track we were on were Mâsa Bedouins, a tribe friendly both with the Azazma and Teacha. If so, the Huitat or Heiwat must be the object of their raid. Now he was one of the Heiwat, and there was at that time trouble between his tribe and the Mâsa concerning some unpaid camels, and if he were caught by the raiders, or for the matter of that, if I also were caught with him, we had no quarter

to expect. So he urged upon me the prudence of firing, without parleying, should they come upon us suddenly. If they appeared, our best plan, he said, would be to stop the camels, and if necessary shoot over them. We travelled that whole day on their track, but did not catch sight of them. We were in unfriendly country, and they were equally anxious to pass unnoticed, for according to Bedouin custom, the Azazma though friendly to them, being at peace with the Heiwat, would warn these of their approach, and so spoil their chance of booty; consequently, both they and we were doing our best not to be seen. We hurried so that we reached the neighbourhood of the wells very thirsty, but too early in the afternoon for it to be prudent for us to go down owing to the people whom we could see watering. So we waited some time, hidden from view, at the top of a hill, from which we could see the well and the people who were moving round about it. At last thirst overcame prudence, and we walked down to find there an old woman who told us the people we had seen were merchants in search of the raiders, and that the latter had gone. They had passed the night before, and had come to her as guests, twenty-four of them, and she had killed for them and feasted them; ten had remained behind filling their water-skins—a long process at this particular well, where the water runs out in a slow dribble. She could not tell us what place they were bound for, but they had said something about going to a meeting of tribes. They were all armed with Martini rifles.

When we had filled our water-skins we went on, avoiding the Wady Jerafy, on each side of which rise abrupt cliffs. If the raiders were on their way to raid the Heiwat, they would come back along the wady, and it would be impossible for us to get out of their way, so we skirted along the hills of *Um Barad*.

Considering the probabilities of the case we came to the conclusion that if next morning we came upon their track leading out of the wady towards the wells of Gerasa, then most likely they were on their way to the Huitat Arabs; while if we saw no trace of them, they must have intended to raid the Heiwat.

Next morning, on coming upon their track leading off to Gerasa, we were satisfied that they were well on their way to the Huitat. At 12 we rested in a small wady running into the Jerafy, beyond the wells of El Baggar. We tethered our camels by some acacia, to give them a good meal off the pods still hanging on the branches.

I sat down some little way off. My man went off to see after the animals. I saw him suddenly drop on to his hands and feet, making signs to me to keep quiet. At first I thought he had seen a gazelle, but when he began cautiously creeping along on all fours, throwing pebbles at the camels to drive them behind some bushes, I guessed what was happening. The raiders were passing along the Jerafy, some two or three hundred yards off. They had gone to the wells simply to water, the well of *Ubairar* holding so little at a time that watering all their camels would have been too lengthy a business when every minute was of importance. From where we were on the top of the hill we saw them pass along the bottom of the wady. Luckily for us, our camels kept quiet and we were not found out. They soon disappeared, but we remained where we were for some little time longer, and it was as well, for two men of the party, who had been lagging behind, soon followed. Not long after, we heard shots fired, and supposed they were having, what is not unusual, a quarrel among themselves.

On the same day, later on, we came upon the owner of the 34 camels the raiders had driven off. They had caught him at the bottom of the well (I have elsewhere described how the men will go down into a deep well and fill the water skins), and as he was quite defenceless they did not touch him, but contented themselves with taking all he had, with the exception of his turban, which he wore tied round his waist. We heard, too, that the raiders had given a good beating to some irregular Turkish soldiers they found trading with the Arabs at the wells of Jerafy, the place at which they had looted the camels.

After this, everyone we met was full of the news. At one well we saw three men coming over the hill, and made everything ready to give them a warm reception if they turned out to be raiders, but they were only Huitat merchants. After some talk on the one subject which filled all men's minds, we went on, and were joined next by two other Heiwat, with whom we travelled to the encampment, where we heard that everyone thought that we had been caught.

Next morning I attended a grand meeting of the tribe, at which was Sheikh Suleyman of the Kassasba Arabs. There was a great deal of talking, and grandfathers—and common ancestors, such as Abu Shufan, father of the Shufan—were invoked, appealed to, and quoted.

The meeting I attended was convened to discuss the causes that had caused the raid of the day before. Strong disapproval was expressed at the Sheikh's neglect. A quarrel of long standing between the Heiwat and Mâsa had been satisfactorily settled the year before, and all that remained was for the Heiwat to pay the *sulḥ* (fine) decided on. By the Sheikh's negligence this had not been done, and the present raid had thus been brought upon them.

Matters were complicated by the news that the brother of Yusuf um Tor had taken the law into his own hands. He was not far from the well when his brother's camels were robbed, and the latter had disappeared. Prompt in action, he had gone to where the Sheikh el Jesaia's herd was grazing and had driven them off to the Mâsa, offering them in exchange for his brother's. It was not till days after that I heard the sequel, which was that the Sheikh had continued the game of reprisals by taking possession of what camels of his own tribe he could lay hands on to replace his own. Amongst others, he had taken those of my own guide, but by that time we had parted company, having had a difference of opinion as to what were and were not his duties. It was as well for me, as it turned out, that we were not together when I reached the next encampment. Nothing was being talked about but the taking and counter-taking of the camels, and as my guide, I found, was involved in a serious quarrel with his people over the matter, I was much better away from him, as had we been together, Bedouin etiquette would have obliged me to take his part. How the matter ended I have not heard. Women and children are never touched in a raid, and no prisoners are made. The men they meet are either killed in the fight, if they try to defend their property, or if they have nothing worth stealing, or are defenceless, are left uninjured. The only case where a defenceless man might be killed is if it were feared he could give his tribe the alarm and so render the raid abortive.

When a tribe has at last had enough of a feud, and wishes for peace, they obtain it in this way. Two men are chosen, one of each of the two tribes at war. The news is spread that the face of A. is towards B. and that of B. towards A., and that there is to be a meeting of the tribes, so many months ahead, on a day mentioned, and that till then hostilities are to be suspended. At the meeting, sheikhs of other tribes are invited to be present and all subjects of complaint on either side are thoroughly sifted. Losses, whether

of lives or camels, are assessed, and the price of the *ṣulḥ* to be paid is decided. The Heiwat and Azazma at the time I wrote these words were negotiating a peace, but had come to no agreement as yet. The Heiwat would wish bygones to be bygones, knowing very well that they have been more successful in their raids than the other tribe, who, having this knowledge, would prefer the number of camels stolen on either side to be assessed, in the hope of retrieving some of their losses.

The tribes of Sinai, who go on raids for camels, will travel long distances across their neighbours' territory before beginning operations. The Huitat round 'Ain Suddar are the most notorious raiders.

Naturally, there is no end to the stories told of deeds of valour on these occasions. In almost all I have heard the hero of the tale vanquishes at least 50 men single-handed. As you travel along you come upon scene after scene of such exploits, and corroborative evidence is given you by some mark in the soil or rock —a gigantic horseshoe, impressed on the rock, or something you are told is a man's footstep—or the mark of his weapon, and so on. In the Wady Jerur you are shown certain long ruts, and you are told they were made by the trailing spear of a certain Hamadieh of the Heiwat, who once upon a time, having killed a man, had to fly from home and seek shelter and safety with another tribe. There he married a second wife, which wife the Sheikh wished to run-away with, and she dissembled and bade him wait 18 days, for she trusted her husband, who was out on a raid, would be back before then. On his return she told him what had happened, and in his anger he killed the Sheikh and then fled, accompanied by his second wife, leaving the first behind. The latter, it is said, incidentally, now took charge of the second wife's child. The murdered Sheikh was a relation of the second wife, therefore her brother pursued the couple, but before he came up with them they were met by the raiders. The man at the time was washing, and did not cease from washing until his slave, who had met the men single-handed, had killed a third of them. Then, lest the glory of the fight should rest wholly with his slave, he called him back and went out alone and killed all such as remained, and did not run away. The ruts I spoke of are said to have been made by his spear as he galloped backwards and forwards after his enemies. But his adventures did not cease there. He and his wife travelled on till they reached a

valley bordered on one side by high cliffs. The wife, sitting under these cliffs, suddenly saw her brother's face reflected in her looking-glass, but she was afraid to tell her husband what she saw, for her brother held a gun in his hand, ready to fire, so she recited a verse. He understands, and so does the brother, who complains that his sister has betrayed him, but, in a forgiving mood, comes down from the cliff and shaves off a bit of his brother-in-law's beard, in token that he might have taken his life but did not. After which the murderer returned to the tribe safe and was absolved.

Many hills in the Peninsula are crowned with a battlement of rocks. If these look down upon a narrow defile you will invariably be told some story about a man having placed the stones there, to make some raiding-party believe that he was well supported, the rocks representing his companions. In all these stories the raiders are deceived, and fly and leave that part of the country unmolested.

Very often they meet their equal and are roughly treated, for sometimes they start out upon a task too much for them. I was told by a man that he was one of a party who were lost on the other side of the 'Arabah. They had not dared to fetch water from the wells, because they were surrounded by too many people for their party to tackle. They were so exhausted that some of the men had to be carried back in the saddle-bags. A raiding-party once met three hostile parties in one day, The first and second they got the better of, without much difficulty, but the third held its own so well that victory seemed doubtful. Determined not to retreat at any price, the band put the *aqal* round their kneeling camels' legs, thus making it impossible for them to beat a hasty retreat had they wished it; they remained the victors, but at such a sacrifice of life that they had to go back to camp and give up that particular expedition. They will generally respect the *wasm* of a friendly tribe, but however much you may declare yourself to be friendly, your camel, if he bear the *wasm* of an enemy, which he may easily do by exchange or sale, will most certainly be taken from you. All tribes differ slightly both in speech and appearance, but those of Sinai too slightly among neighbouring tribes for it to be easy to prove a man to be of one or the other. The difference becomes greater in proportion to the distance lying between their territories.

A cause of similarity in custom between tribes is the intercourse which results from their trading with the same places and thus

constantly meeting. For instance, two of the Heiwat met the raiders of the Mâsa in the Girafy and were allowed to pass unmolested as being friendly to the Maasa, but in most cases Arabs do not think it prudent to allow the raiders to approach near enough to decide whether they are friendly or not. It is always easy enough to recognize them from a travelling party, even a long way off, but it is not so easy to know to what tribe they belong. It is always possible to put up a white handkerchief and parley, but an Arab will generally prefer assuming a distinctly defensive, not to say offensive, attitude to any foe he meets on the road. The odds are so very much in favour of his losing his camels if he allows an enemy to come to too close quarters. A man told me he had once spent a whole night exchanging shots in the dark with a band who had appeared on the scene just after sunset. It was not till morning that they discovered they were friends, but no harm had been done, the shooting having been rather wild!

(*To be continued.*)

FURTHER TALES OF THE FELLAḤIN.

Translated by R. A. Stewart Macalister, M.A., F.S.A.

The following is a further instalment of Yusif's collections, begun in the last issue of the *Quarterly Statement*. The incidents related in the present series are absolutely true, the actors in some of them being still living.[1] They are not on that account less worthy of insertion in a "folk-lore" series; for though they do not illustrate folk-imagination, they graphically portray the sordidness of the daily life, the spiritual tyranny (so to speak) and causistry of the sheikhs, and some other aspects of fellaḥ existence. On that account the following series is of considerable importance:—

I. There were two houses in a village side by side, one occupied by a sheikh, the other by a blind man. A dog defiled the party wall between the houses. The blind man came to the sheikh and

[1] I am not inclined to vouch for the last tale, which, however, is too good to omit.

told him what had happened, asking what was necessary to cleanse the wall. The sheikh answered: "You must pull it down and rebuild it seven times." The blind man said: "It is the wall between my house and yours"—to which the sheikh answered: "In that case, a little water will be sufficient to cleanse it!"

II. A certain man committed a moral offence, and went to the sheikh and told him of it, asking how he should be purified. The sheikh bade him wash in the water of a hundred and one springs—that being the number of pellets on his rosary. The man was much distressed, not knowing where he should find a hundred and one springs: so he returned to the sheikh, and begged for a more definite answer. The sheikh said: "Prepare a jug of water and put a sieve above your head: pour the water on the sieve that the water may come down from all the holes: when a hundred and one holes have been poured through, you will be clean." The man did so, and even yet this method of purification is sometimes adopted.

III. A certain woman had no child and feared that her husband would on that account divorce her. She tried physic and means and devices suggested by the women around, without any benefit. They advised her to seek physic in the town, so she went, and began to ask the women there if there were any who had knowledge of the medicines suited for those without children. They answered that there was a cook in the Greek monastery at Ramleh who had such knowledge. She went to him to enquire, but he answered that he knew nothing of such matters. She importuned him, promising a reward; and at last, being weary of her, he went to his room and brought three pills which he happened to have by him, and which had been dirtied by being carried in his *ṭarbûsh*—and he bade her go and wash in a bath, and take a pill every night. As it fell out, some time after this she had a son, and after his birth the woman brought a sheep and a pair of chickens as a gift to the cook, declaring that the happy event was the result of his medicine. The news spread, and the cook was besieged on all sides by women in the same circumstances—but he never again would give medicine to any.

IV. A girl in the village of Zakariya fell deeply in love with a man of the village, who however did not return her affection. She applied to a friend of his and begged him to do what he could

for her. He promised to do what he could. Now the man, some time afterwards, went out shooting, and happened to pass by the monastic agricultural school called Beit el-Jemâl. He saw lying about outside the school some scraps of waste paper, on which some of the boys had been scribbling exercises in the Italian language. He took one of these papers and folded it like an amulet, and gave it to the girl saying: "Take this amulet, and wear it under your garment, and (if God will) your desire will be accomplished by its means." The girl gave him a measure of lentils, and promised to give him four dollars when the matter should be completed. After a while the harvest began, and it happened that the girl, and the man she desired, and Muḥammad abu Jaudi, the man who had given her the amulet, were working together. Abu Jaudi told his friend the story, and they made a plan to deceive the girl in this way—the man she wished for should promise to take her to wife at the end of the harvest, and to give his sister to her brother in exchange for her: they would thus secure her to fetch and carry for them in the time of the harvest, and at the end the man would deny that he had any recollection of her. This programme was carried out. When the girl saw her supposed lover faithless to her, she went to Abu Jaudi, asking the meaning of it. Abu Jaudi said that it was because she had not prepaid the four dollars. She at once handed over the money, and he told her to come another time. When the appointed day came, she visited Abu Jaudi and told him that no progress had been made. Abu Jaudi said: "Perhaps the writing on the amulet is obliterated." The girl drew out the amulet, and found it torn and ruined. She begged Abu Jaudi to write another, but he answered: "the man who wrote that amulet has let the village." Then the girl understood that the affair was hopeless.

[Yusif got the story of this abominable trick from Abu Jaudi himself, who is not a little proud of his cleverness. He is a typical fellaḥ.]

V. In the year of the war between Russia and Turkey the men were taken from all the villages for military service. There was a woman in one of the villages whose son was taken. She followed him all the way to Esdûd to bid him farewell. The telegraph-wire from Jaffa to Gaza passes through Esdûd, and the woman, asking what it was, was told it was the means whereby

news was sent to the Sultan. So she went to the wire, and said: "Oh my lord the wire, the garden of an injured woman has been ravaged! Tell the Sultan that I have a boy, and they have destroyed me by taking him to be a soldier." She used to return every day to get the answer, putting her ear to the telegraph poles, and listening to the sound of the wind playing on the wires. At last she lost patience and returned home, and prepared cakes baked with butter, of a kind her son always wished to have when he was with her. Then she carried them to the wire, and put them beside the pole, and begged the wire to convey them to her son: and then went home again, leaving them by the pole.

[This woman lived in Abû Shûsheh: she died only a few years ago. Nephews of hers are still living in the village.]

VI. A certain fellaḥ had a cat which he had reared for a long time: the cat had beautiful long fur. One day he carried it to town to sell it. When he entered the market a man saw him and said: "Will you sell this *sinnawr* for a napoleon?" He answered, "No." He had never heard a cat called such a grand name as *sinnawr*, and as he walked on, he stroked the cat from head to tail. Another man met him, and said: "Will you sell this *ḥirr* for a dollar?" He answered, "No." The name *ḥirr* appeared to him less honourable than *sinnawr*, so as he walked on he stroked the cat from back to tail only. A third came, and said: "Will you sell this *ḳitt* for a beshlik?"[1] He answered, "No." As the name *ḳitt* was less honourable than the others he stroked its tail only. Then a fourth man came, and said: "Will you sell this *biss* for a metallik?" Whereupon the man seized the cat by the end of its tail and threw it away, saying: "God reprobate this sort of beast of many names and little virtue!"

[1] A coin worth about sixpence, and containing ten metalliks.

THE FISHERIES OF GALILEE.

By Dr. E. W. G. Masterman.

Probably no place in Northern Palestine, off the sea-coast, receives so large and so regular a supply of fish as the mountain-town of *Ṣafed*. In the cool weather it comes from the whole northern shore of the Lake of Galilee and from the little lake *el Ḥūleh*: but in the summer, chiefly from *el Baṭaiḥah*, the great marshy delta of the Jordan at the north-eastern corner of the Lake of Galilee. From here, processions of mules loaded with boxes of fish make the five hours' journey to *Ṣafed* at least once, and often twice, in the twenty-four hours—except during the Sabbath. It is indeed, as the last proviso implies, particularly for the Jews that the fish is brought. So great is the demand that fish is often cheaper and more plentiful in *Ṣafed* than at Tiberias, although it is Tiberias men that do all the fishing.

The Government tax on all fish taken from the Lake and from the adjoining Jordan, is one-fifth. Like all the taxes this is "farmed out," and the *'Ashshār* (tax collector) pays, it is said, 1,000 Turkish pounds every three years for his right of taking one-fifth of all the fish caught. In addition to this, the owner of *el Baṭaiḥah*, 'Abd er Raḥmân, a Pasha in Damascus, has private rights, and a *Ṣafed* Jew pays him 200 napoleons[1] annually for the exclusive control of all the fishing there. He engages the fishermen and pays them a percentage on all the fish sold.[2] The *Ḥūleh* and *'Ain Mellāḥah* fishing rights are under the *jiftlik*—the management of the Sultan's private property. There are no government taxes, and the fishing rights are let annually to a Christian[3] for 260 napoleons. He engages his own fishermen—from the Bedawin in the neighbourhood—and pays all expenses.

[1] The previous three years the rent was only 180 napoleons.

[2] Two piastres for each *roṭl* of the best fish, and one piastre per *roṭl* for the inferior kinds.

[3] I must acknowledge with thanks the kind way in which this man and the tenant of the *Baṭaiḥah* fishing have supplied me with information used in this paper.

Fishing off Tiberias is only followed to a considerable extent during the winter and early spring months. It is not nearly so important as that along the northern shore from *Mejdel* to *el Bataihah*. The bay at *et Tabaghah* is, during the early months of spring, a wonderful place for fish; they swarm there, attracted by the copious hot springs which, loaded with vegetable débris, here pour their waters into the Lake. For about three months—mid-January to mid-April—the fisherman make this their head-quarters, erecting a few tents or reed huts on the shore, close to the mills. While the water a few yards out teems with larger fish, the shallows close in shore swarm with small fish-fry.

The fishing off *el Bataihah* is by far the most valuable on the whole Lake. Here, close to the mouth of the Jordan, as well as in the waters of that river, fish may be taken all the year round—though varying in kind according to the season. The fishermen, whose homes are in Tiberias, make temporary reed-mat shelters for themselves while on shore, beside which they spread out their nets along the beach to dry (*cf.* Ezekiel xxiv, 5, 14, xlvii, 10). It is interesting to notice that this, the richest fishing-ground, is close to the ruin *et Tell*, which is generally acknowledged to be the site of the village of Bethsaida, the "place of fishing," which, according to Josephus, was afterwards officially re-named Julius. There is no need whatever to suppose that this place was necessarily, because of its name, on the shore itself. This intensely malarious plain could never have been a suitable place for a Roman city. Every modern analogy would lead us to suppose that the fishermen would live in the healthier site, raised above the marshes, and go to their work even as to-day the Tiberias fishermen do. From Bethsaida—at *el Tell*—it would, with a good road or path, be less than half an hour's walk to the sea, and half that to the bank of the Jordan. This Bethsaida must have been not only the home of the fishermen, but the centre of the fishing industry for the whole district.

At *el Hūleh* and the *'Ain el Mellāhah* stream (which flows into this Lake) fishing is carried on by very primitive methods. The Bedawin fishermen occupy a mat hut, made of papyrus, on the western shore, close to the Jewish settlement of *Izbaid*.[1] During the day they catch fish by means of the "cast-net," as will be described; but at night they employ boats and use the *m'batten*.

[1] Really *ez zubaid*.

As I recently spent some hours in the better of the two rickety, smelly, and very leaky boats which the tenant of the fishing rights supplies to his men, it may be of interest to mention a few points that struck me about this little-visited Lake. The water is everywhere loaded with sediment. Over the whole area the tops of long water weeds lie close to the surface—even in the spring, when the level is at its highest. Doubtless this has become more marked within the last two or three years, as the level has been considerably lowered by dredging and deepening the Jordan bed near its outlet. This work, undertaken by agents of the Sultan, has resulted in the reclaiming of many acres of previously permanent marsh-land to the north of the great papyrus swamp. It would be quite possible, as has often been pointed out, by further deepening the Jordan channel, to completely drain *el Ḥûleh*. It has now, I believe, in spring, a maximum depth of nine or ten feet. Our special object in navigating the Lake was to visit the great papyrus swamp to the north, of which "Rob Roy" MacGregor gives such an interesting description.[1] The *babîr* or papyrus reeds form a continuous irregular wall along the northern shore. The great mass is here floating, its network of roots being submerged some inches under the water. Upon this raft a considerable amount of soil is deposited, from which springs a tangled mass of undergrowth, amongst which we noticed some beautiful tall ferns. Splashing about at the edge of this *sudd* we saw a number of cat-fish, which at this time of year (May) make their way into or under the mass for breeding. We found no reeds as high as those described by "Rob Roy," viz., fifteen feet; we spent some time in gathering the tallest we could find, and carefully measured them: the longest were between nine and ten feet, and the average of fully-grown specimens was only about seven feet. This was in the neighbourhood of the influx of the Jordan; it is of course possible that deeper into the swamp they may grow higher, but our impression is that those near the fresh current of the Jordan are the highest. We also could see nothing of the method of growth figured semi-diagrammatically in "Rob Roy's" book (p. 301), even though we had the book before us. Indeed, it is evident that the conditions have altered in many respects. The channel of the Jordan very rapidly narrows, and less than 100 yards up became too narrow for

[1] *Rob Roy on the Jordan*, ch. xvii.

us to row the boat. Our boatmen were anxious to take the opportunity of being there to fire the reeds, a proceeding they do from time to time to prevent the growth from spreading; but as there had been a heavy thunder shower a few hours before, their repeated efforts all failed to start an extensive conflagration. Recently I have learned that some "Englishman" has obtained a firman from the Sultan to carry off as much papyrus as he wishes, and it is locally reported that he has already removed twenty tons, and is coming back for more. Perhaps he is going to manufacture "genuine antique" paper from the "original material"! The *Ḥūleh* Bedawin are constantly cutting these reeds for the manufacture of the mats, upon the sale of which to the villagers many of them make a livelihood; all the Bedawin of this plain build their houses of this material. The most characteristic inhabitant of the *Ḥūleh*, that we observed, was the pelican. A fine specimen with a great stretch of outspread white wing hovered over us, looking, but for his bagged beak, like an albatross; while at some distance to the west we saw three others swimming on the water like swans—for which indeed we at first took them.

From the Lake of Galilee fish is carried fresh to *Ṣafed*, Nazareth, and other places in Galilee, and is dried and salted for the Damascus and Jerusalem markets. From *el Ḥūleh* and *'Ain el Mellāḥah* fish is sent to *Ṣafed*, to *Merj 'Ayûn* (five or six hours away), and to Damascus. In the case of the latter special precautions have to be taken; the fish (*musht* and *barbût*) is caught towards the evening, is sorted out on reed mats, and packed and dispatched the same night. Salted fish is also sent from here to *Zaḥleh* and other places in the Lebanon. During the summer months fish cannot be sent, in a fresh state, far from the Lakes; most of it goes to *Ṣafed*, and in this season almost all of it consists of carps and barbels.

The average price of the best fish in *Ṣafed* is from ten to fourteen *piastres* a *roṭl*, or about fourpence a pound. Cat-fish, which is always cheaper, may be as low as a third of this when there is a glut in the market.

Almost all the fish are caught by means of nets, of which there are three kinds: the "cast net" or *shabakeh*, the "draw net" or *jarf*, and the *m'baṭṭen*. The old-fashioned method of poisoning fish is still at times resorted to by amateurs. At Tiberias crumbs of

bread mixed with cochineal (which appears to be a fish poison) are thrown on the water, and I am told that even *'arak* (spirits of wine) is also sometimes used. The Arabs at *'Ain el Mellāḥah* sometimes capture the fish in that pool by means of poison, and they also, when the weather is getting colder, and the fish by instinct make for the deeper waters, stretch nets across the stream and make big hauls. Yet another method employed at times at Tiberias is that of using a weighted string of sharp, unbaited hooks which are rapidly drawn through the water, and, if skill is used, often come up with several impaled victims. This may have been the method referred to in Matt. xvii, 27. It is, however, the regular fishing with nets which alone is of commercial importance.

The "cast net" is a small circular net with small bars of lead attached all round its margin: to the centre is usually fixed a small cord. It is apparently the ἀμφίβληστρον of Matt. iv, 18, and Mark i, 16. Three sizes are used, differing in wideness of spread and in fineness of mesh. The smallest size, used for *sardinnen*, is known as *el mukheiyer*; the second, the most commonly used, is called *esh shabakeh* (a name usually applied by the public to all "cast nets") or *'Ashranēyeh Kafāfeh*; while the largest, used only in mid-winter for the largest *musht*, is called *'Ashranēyeh Sarosēyeh*, or simply *es sarosēyeh*. It may be of interest to give the dimensions of samples of the two latter which I have recently measured. The *shabakeh* measured in length, from the centre cord attachment to the lead weights, 11 feet 6 inches. When spread out fully the circumference was 39 feet 3 inches. There were seventeen meshes to the lineal inch. The *sarosēyeh* measured: length, 11 feet 6 inches; circumference, 61 feet 4 inches; mesh, ten to a lineal foot. The method of using the "cast net" is as follows:—The fisherman carefully arranges the net on his right arm, the weights hang free but the net is wound up. As the fine mesh gets readily in a tangle he critically examines the weights to see that none are out of place. He then advances into the water up to his waist, having gathered his scanty garments well out of the way; he cautiously looks around till he sees some indication of fish—a few fins showing, a troubled surface, or a fish jumping—and then with a bold swing of his arm he deftly lets his net fly through the air so that it spreads out flat and descends into and through the water with its weighted edges in a complete level circle. As it does so, it

necessarily shuts in all the fish in the area over which it falls. The fisherman knows the lie of the net by means of the cord in his hand. He then walks over the net, feeling with his feet the nature of its contents, and flattening it down in his progress so that the fish become well entangled in its meshes. He now draws it up again by means of the centre cord, and as he carefully twists it up over his arm he disentangles the captives one by one. He may in this way capture several dozen fish in one throw, indeed (specially when the net is used in conjunction with the *jarf*, as described below), so great may be the mass of fish that the net cannot be raised but must be dragged on shore. It is seldom that the skilled man casts with no result whatever. It is delightful, as I have repeatedly done, both along the north shore of the Lake of Galilee and at *el Ḥūleh*, to watch the skill and precision with which the net is flung.

The *jarf* or "drag net" is as much as 400 metres long. In mesh it is as fine as the *shabakeh*. It is used at the Lake chiefly during daylight, but along the Bay of Acre many of these nets are employed after sunset with lanterns and torches to illuminate the scene. The net is paid out of a boat in an immense semicircle, the two ends being near the shore. The upper side floats by means of corks, the lower is kept down by small lead weights. As soon as the net is in position the men on the shore commence the process of hauling it in. Four men, if possible, take charge of each extremity; they have long ropes fixed to the lower and upper corners so that they drag in the bottom at the same time as the top. In order that a steady and uninterrupted pull may be kept up they merely fix the ropes to their belts, and each man nearest the landward end of the ropes, as soon as there is room, leaves off his hold there and runs forward to seize the ropes at the net-end as they come in shore. The fishermen consider it a matter of importance that when once the net has commenced to come in, there should be no pause in its progress. As the centre parts begin to come into shallow water some of the fishermen assist its progress by jumping or diving into the water and lifting the weighted lower side over the large stones. This is particularly necessary at Tiberias, where there are many large stones all over the bottom. Finally the net reaches the shore, having "gathered of every kind" (Matt. xiii, 48). Clearly the net (*σαγήνη*) here described was the draw net.

The *m'batten* (really مبطّن, meaning "lined," used for the lining of clothes) is a compound net about 200 metres long, made of three nets of equal length and breadth all fixed to one suspending rope. The two outermost nets have a wide, that in the centre a fine, mesh. Like the *jarf*, one long side is floated near the surface by means of corks, while the other is weighed down with lead. In order to distinguish its situation in the dusk or dark a floating empty petroleum tin is fixed to the two ends. A fish coming in contact with the net passes easily through the nearest outer net, but the middle one he, in his struggles, pushes in front of him, *through the meshes of the third net* in such a way that when he tries to retreat he finds himself hopelessly entangled in a kind of bag of netting—covering his broad end.

The *m'batten* can be laid in any depth of water as it does not touch the bottom, but, as a matter of experience, the fishermen find that the biggest hauls are made usually not far from the shore. The net is paid out in a long line parallel to the shore, the fishermen then row their boats slowly along its whole length and back again—particularly on the landward side—in order to frighten the fishes. If there is a large catch, the net, weighed down with its contents, sinks in the middle. When this happens it is immediately hauled on board the two[1] boats. If there is no such result, the net may be left out from the middle of the night till daybreak. Before paying out the nets, the fishermen are often able, even in the darkest nights, to locate a shoal of fish by the sound of the fishes opening and shutting their mouths at the surface.

Off Tiberias yet another method has been adopted in recent years. It was found that the *musht*, who are a very wily fish and the most difficult to catch, frequently managed to jump over the floating edge of the draw-net after they had been surrounded, so a new device was contrived. Two boats, as usual, act in concert, their movements being directed by a man stationed on a point of the shore high above the water, who, from this vantage ground, is able to detect the presence of a shoal of *musht*. Proceeding to the spot indicated, the fishermen of one boat quickly drop the long *jarf* in a circle round the shoal, while those in the second boat pay out an *m'batten*—without its lead weights—all round the circle, keeping it stretched out flat on the level of the water by means of

[1] In these manœuvres two boats always work together, *cf.* Luke v, 7.

wooden rods, and loosely fixing it at points to the floating edge of the *jarf*. The *musht*, finding the circle closing in round them, jump the edge and land on, and are entangled in, this floating net. The *jarf* may now be dragged to land. As the bottom of the lake is full of great stones, some of the fishermen dive in and assist the progress of the weighted side over these obstructions. When the circle is very full of fish the *shabakeh* is used again and again to partially clear the *jarf* by securing the enclosed *musht*; under such circumstances this net is often brought up an almost solid mass of fish.

The Tiberias fishermen are quite a class by themselves; fine, stalwart men, mostly Moslems, with a few Christians. The business is hereditary in certain families. The nets are usually made and mended by the women of their households. Irregular fishing with the cast net is carried on by Bedawin living near the Lake of Galilee, and particularly near the *Hūleh*.

Although it does not do to argue too conclusively from modern customs to the ancient ones, there are one or two which throw some light on the narrative in John xxi. There is, first of all, the unknown Stranger (v. 4) on the shore who tells the disciples where to cast the net. If then, as now, fishermen were accustomed to have their movements directed from the shore—at times, at any rate—it will explain the fishermen's ready response to the directions. Then, it will be noticed that it is at dawn that the nets, if left out all night, are usually hauled in. The condition of Simon (v. 7) is readily understood if the fishermen were accustomed to dive into the water to assist the progress of their nets along the bottom; and so, too, his plunging in with his "fisher's coat" to meet his Master, appears, also, all the more natural and in keeping with the surroundings. The fishes described (v. 11) as "great" would probably be members of the carp (*Cyprinidae*) family, which often exceed two feet in length. These, to-day, are particularly taken in the "drag-net" (v. 8).

With regard to the varities of fish it is unnecessary here to give a list of all the forty-three kinds found in the inland waters of Palestine. Many of them are quite small and others extremely rare. I shall here almost exclusively refer to the important food fishes of the two Lakes of Galilee and the adjoining streams.

Zoologically these fishes belong to three families the *Chromidae*, allied to the wrass; the *Siluridae*, or cat fishes; and the *Cyprinidae*, or

carps. A small blenny (*Blennius varus*) is also found in the Lake, but it is too small to be of commercial importance.

The *Chromidae* are the most characteristic fish of Palestine. In appearance they are somewhat like their allies the wrass. They are broad from back to belly, but somewhat narrow from side to side. They have a long dorsal fin running the greater part of their length, the front part of which is supported by fifteen or sixteen strong sharp spines, while a broader part behind encloses about a dozen softer and more flexible spines, lying close together. The eight known species are distinguished largely by differences in the numbers of these spines. It is on account of the comb-like back that the fishermen have named this fish *musht* (مشط), a comb. These prickly spines are, no doubt, formidable weapons of defence, and may possibly (though this has never been proved) be poisonous to smaller fish, as is the case with the weaver fish, but they, more than anything else, are the cause of their entanglement in the fine meshes of the fishermen's net. It is the male members of this family of fish which have the remarkable habit of carrying the spawn and the young fry in their mouths until they develop to quite a considerable size.[1] As the young develop the cheek pouches become enormously distended, and the unfortunate parent is unable to close its mouth. How it can feed—unless it feeds on its own fry—is a mystery. This phenomenon is very commonly observed with the *kelb* (*Hemichromis sacra*)—indeed, this is the only variety in which I have actually seen it—but it has been described in other species, and is probably, as the fishermen emphatically state, common to all the family. During, or very soon after, the breeding season most of the *musht* disappear entirely from their usual haunts—it seems probable that they take to the depths of the lake. *Musht* of various kinds are very plentiful during the winter and early spring months, particularly immediately after storms, but are very scarce after about May.

With regard to the varities, zoologists describe eight species. The fishermen do not make such fine distinctions. The common commercial kinds are *musht abiad*, *musht lubbud*, and *kelb*, or *kuleibeh*. *Musht abiad*, or white *musht* is that known as *Chromis niloticus*, a fish found all over the Jordan system and also in the Nile. Although a very light colour, the males, during the breeding season, are considerably darker, with marked spots of a lighter colour; it is a very handsome fish and the chief favourite for the table. Well grown specimens are eight to nine inches long. In addition to colour and size, this *musht* is distinguished by a slightly convex forehead and a slightly concave tail.

[1] There is a most extraordinary misprint in the *P.E.F. Memoirs*, "Flora and Fauna," p. 166, where it says of these fish fry that they "do not quit the sheltering cavity till they are about four inches long!" This is, of course, ridiculous. They leave the shelter of their fathers' mouths when about the size of a lentil, and apparently *never return*.

Musht lubbud is that known scientifically as *Chromis tiberalis*. *Lubbud* is apparently derived from لبد, meaning "to stick together," "to be compact" (hence *lebādeh*, meaning "felt"), and may refer to the extraordinary compact nature of the shoals. Thus Tristram says[1]: "I have seen them in shoals of over an acre in extent, so closely packed that it seemed impossible for them to move, and with their dorsal fins above the water, giving at a distance the appearance of a tremendous shower pattering on one spot of the surface of the glassy lake." But others explain it as referring to the habit of this fish to cling to the ground and hide under stones—a meaning equally permissible to the Arabic root. This is the most plentiful of all the *Chromidae*. Of average size perhaps a little smaller than the first mentioned, it is distinguished from it by a more convex forehead, a darker colour, and a slightly convex tail.

The *kelb* ("dog"—a name also applied to the "shark") or *kuleibeh* ("little dog") is the *Hemichromis sacra*. It is a smaller fish than the two former, from which it is easily distinguished by its narrower shape (from back to belly), its concave forehead and ugly mouth. It is less prized as food than these others, and is caught also slightly later in the season. It is in best condition, however, in the winter, when it fattens on the *sardinnen*, among which it plays havoc. It breeds among the flags and bulrushes, and so the males, doing their parental duties, often fall victims to the net.

Some of the smaller *Chromidae* are called *ádadi*, but I find a good deal of disagreement among the fishermen as to what species should be so called. The *Memoirs* are, however, I believe, correct in saying it is the Arabic name for the small *musht*, *Chromis flavii Josephi*, which is distinguished by yellow spots on the anal fin. It is not a table fish. A *Bedawy* fisherman also told me that he designated one kind as *marmar* (marble), but he could not show me a specimen. I have seen a small *musht* in the pools of *'Ain el Madawereh* and *'Ain et Tineh* with a "marbled" back, which may be the kind referred to, but I have not had the chance of handling it. *Kurt* is a name also applied to a small *musht*, "white like silver."

The "cat-fish" of Galilee—*Clarias macracanthus*—is known to the fishermen as *barbût*[2] (plural, *barabēt*). This is the fish referred to by Josephus (*B.J.*, III, x, § 8) under the name Coracinus, as found in the fountain "Caphernaum." It has a great head, ornamented with a row of long and prominent barbels, and when it grows to its full size—four or five feet—is a most formidable-looking beast, and does great destruction among the smaller fish. Such large individuals are rare; specimens caught for eating are usually between two and three feet. They are sold

[1] *P.E.F. Memoir*, "Flora and Fauna," p. 165.

[2] The verb *barbut* is a colloqual Arabic word for making a splashing.

very cheaply in *Ṣafed*, because they are forbidden food to the Jews on account of the absence of scales (Lev. xi, 10). They are sometimes as cheap as four piastres (7½*d.*) for a *roṭl* (= 5 lbs. 10 ozs.), or more than 1½ lbs. for 2*d.* This is about a third of the price of *musḥṭ*. For the table they are usually cut transversely, and fried with butter or oil. They are excellent eating. From the fact that they are not *kosher*, *i.e.*, "pure," they are thought to be the "bad" fish of Matt. xiii, 48, which "they cast away." The habits of the cat-fish are in many ways remarkable. They are able to survive a long time on dry land; they commonly reach *Ṣafed* alive. This is due to their curious arborescent gills, which do not collapse when out of the water, and which, as long as they remain damp, carry on the process of respiration in the air. Shortly before the breeding season these creatures become very lively: I have seen numbers of them tumbling about like small porpoises on the surface of the lake—near its middle—with a crowd of noisy gulls circling over them. Although they undoubtedly creep up the warm streams, and even along the irrigation canals—crossing at times even patches of dry land—the fisherman say they do *not* (as Tristram states) breed in these places but, in the Lake of Galilee at any rate, in the deeper water. They never see the small fry of the *barbût*. In the *Ḥûleh* they disappear altogether into the papyrus swamps for four months after May. When seized the cat-fish gives a curious squeak something like a cat.

The *Cyprinidae*, or carps, are a large family, and twenty-three different species have been described as occurring in Palestine. Of these the most important food-fishes are the *Kersîn*, the *Abu Ḳisher*, the *Ḥafâfi*, the *Ḥafâfi bandûk*, and the *Sardinnen*.

The *kersîn*, known also as *abu bâz*,[1] is scientifically *Barbus longiceps*. It is a handsome trout-like fish, often over two feet long. Like all the carps, its upper jaw is provided with small barbules, and the corners of its mouth with larger ones. It is one of the best-eating fish in the district, its special attraction on the table being its absence of the many small bones which make the eating of *musḥṭ* such a mixed pleasure.

Closely allied to this, but considerably more plentiful, is the *binny*,[2] or *abu ḳisher* (also known as *ḳishereh*). The latter names, meaning "scaly," are given on account of this fish's remarkably large scales. The specimens which come to the market are usually somewhat smaller than the *kursîn*, but it grows, I believe, at times to the same length as the latter. Zoologically it is known as *Barbus canis*.

The *Ḥafâfi* (*Capoeta damascîna*) is essentially a river fish. It is found in the Jordan, or near its mouth, as well as in rivers all over the land. It is, as its Latin name implies, common at Damascus, in the Barada river. Specimens which I got there some years ago measured one foot, and this is about the average size. This fish is yellowish in

[1] Lit., "father of a mouth."

[2] Lit., "coffee brown."

colour, particularly on the belly, and in flavour is inferior to the two carps previously mentioned.

The *Capoeta syriaca* a closely allied species, common in all the rivers of the Jordan system, is known as *ḥafāfi bandūḳ* or "bastard" *Ḥafafi*; the fishermen thinking that the fish is the product of the interbreeding of the true *ḥafāfi* with some other species. Another *bandūḳ* is *Capoeta socialis*. The three species are not distinguished in trade. Yet a fourth kind is kept by the inhabitants of the village of *Deishun* in the village fountain: it also occurs in a neighbouring semi-underground pool. It is known as *Capoeta fratercula*.

The fishermen also describe *banādīḳ* (bastards) of the *kersīn* and the *abu ḳisher*, the former with a head like a *kersīn* and scales like the *ḥafāfi*, and the latter with head like the *abu būz* but scales like *abu ḳisher*; but I am very doubtful whether these are really distinct species; and among a considerable number I have examined, I have never found one.

Mention must also be made of the *sardinnen* (*Alburnus sillah*), a small species about 6 inches in length, which is at times caught in great numbers in the Lake, near the shore, although the greater part of the year it is scarcely met with, probably because it keeps to the deep waters. The Arabic name is a modern one, and clearly suggested by their resemblance in size and shape to sardines. They are eaten fresh, fried, and when properly cooked are excellent, but they are not successfully pickled. Attempts have been made in recent years to prepare them like true sardines, but without much success. Nevertheless, it would appear not improbable that they were the sardines which we know were prepared here and were even sent to Rome. Perhaps they were the טרית of the Talmud, and the two "small fishes" (*ὀψάριον*) of John vi, 19.[1] A still smaller fish of the same order, known to the natives as *libbeh*, but scientifically as *Descogmathus lamta*, swarms in the hot springs at *ʿet Ṭabaghah*. It is a pretty minnow-like fish, and may easily be caught in countless numbers with a muslin hand-net, but is too small to be of use for food. In the similar warm springs near the Dead Sea, *e.g.* *ʿAin Feshkhah*, another little fish, the *Cyprinodon dispar*, of the family of the "toothed carps" (*Cyprinodontidae*) occurs in numbers equally great.

[1] See Edersheim's *Life and Times of Jesus the Messiah*, Vol. I, pp. 682–83.

GLEANINGS FROM THE MINUTE-BOOKS OF THE JERUSALEM LITERARY SOCIETY.

By R. A. S. Macalister, M.A., F.S.A.

Introductory Note.

The Jerusalem Literary Society was founded in 1849, the first meeting being held on the 20th of November of that year. In the rules of the Society the purpose of the Society was stated to be the "investigation and elucidation of any subject connected with the Holy Land." Each member was to contribute a written paper at least once in two months—a rule enthusiastically observed at first, though, as might perhaps be expected, the ardour evaporated as the Society grew older. The Society was to meet every Friday evening, one hour after sunset.

The minutes of the Society, extending from the date above-mentioned to 6th of January, 1854, are contained in two large MS. books, which include not only a report of the proceedings at each meeting, but also transcripts in full of the papers read,—the first volume entirely in the handwriting of Mr. J. Finn (then the British Consul), the President; the second volume partly so, partly in that of a clerk.

The Society still exists in the form of a magazine club; the minute-books referred to are in the custody of Dr. Wheeler, the present Secretary, to whose kindness I am indebted for allowing me to have them in my possession for a time. On glancing through them I came to the conclusion that there was a good deal of matter that deserved to be rescued from the oblivion of the minute-books, and to be made more generally accessible. Many descriptions are to be found of life and travel in the country under conditions now to a large extent passed away. I have therefore transcribed (in whole or in part, as the case might be) such of the communications as seemed worth putting on permanent record. Some rhetorical passages have been excised, and the spelling of the place-names conformed to the orthography of the P.E.F. map, unless there seemed any special reason to retain the form adopted by the author of the paper.

R. A. S. M.

I.

At the meeting on 20th November, 1849, Mr. SANDFORD exhibited a Saracenic helmet of wrought steel ornamented with gold, of very elegant workmanship and in good preservation. It is in shape almost a hemisphere, surmounted by a small pointed ornament. Curved steel bars, terminating in a rim ingeniously riveted on, divide the outside of the helmet into segments. The diameter is 8½ inches. The edge is perforated with small holes at equal distances: probably a soft cap or lining was attached to these. A curved bar slides in a ring fixed to the front of the rim, and was no doubt intended to preserve the nose and face of the wearer. The following Arabic inscription is emblazoned in gold around the rim:—

بسم الله الرحمن الرحيم
الله لا اله الا هو الحي القيوم
لا تاخذه سنت ولا نوم
له ما في السموات وما في الارض
من ذا الذي يشفع عنده الا باذنه
يعلم ما بين ايديهم وما خلفهم
ولا يحيطون بشي من علمه الا بما شاء
وسع كرسيه السموات والارض
ولا يوده حفظها
وهو العلي العظيم

In the name of God the most merciful
God—there is no god but He, the living, the self-existent
No slumber nor sleep shall take Him
To Him belongs everything in Heaven and in Earth
Who is he that shall intercede except with His permission
He knows what is in their hands and what is behind them
And no one attains anything of His knowledge but as He permits
The heavens and the earth are His extensive throne
Sustained without effort by His will
And He is the high omnipotent.

The curved bar of the helmet bears the words ما شاء الله, a constant exclamation of the Muslims, the equivalent of which is perhaps "What hath God wrought."

II.

Mr. FINN read the following "Journal of his recent tour from Jerusalem by Gibeon, Antipatris and Nazareth to Acre."

Left Jerusalem Thursday, 18th October, 1849, for a tour to the north of Palestine. It was late in the evening but we pitched our tents at Gibeon [*el-Jib*] after the young moon had set. Our situation was near the ancient well in the cavern of the rock. It was a lovely starlight night, and in the village there was a wedding festivity going on, with singing, screaming of women, and clapping of hands. The flickering light of a great fire shone wildly among the houses. This was continued to a late hour . . . .

19*th October*.—Rose a good deal before the sun, and found the air really warm. Before the sun appeared I was within the cavern of the well, and also within the dry ancient reservoir . . . . Soon afterwards the women with their children were fetching water for the village . . . . The village of Kulundia showed very pretty before us . . . .

We were mounted at a quarter-past eight, and proceeding towards Beth-horon [*Beit 'Ur*]. It seems to me that the High Place of Gibeon must have been the rising ground adjoining to it but a little higher, the top of which is still covered with trees, and at the foot of which is the excavated rock-well which alone supplies the people of Gibeon. This appears more distinctly from the road by which we were going than any other direction. In 35 minutes we got a view of the sea and the great plain of Sharon. Here the Roman pavement of the road is more distinct and remains so at broken intervals for a long time.

On our left was the *'Akabet el Ajlûn*, or glen down which Joshua must have chased the five kings of the Canaanites . . . . . It was along this valley that the body of Bishop Alexander was conveyed towards Jerusalem in December, 1845, as being the least rugged approach known from the plain to Jerusalem. On our left were the villages of *Bûdda*, *Beit Dukka*, *Beit 'Anân*, etc. (*Ajlûn* is now a mere ruin). *Beitania* on our right. Then came Beth-horon in sight

with a fine view of Ramleh and its lofty tower. Arrived at Beth-horon the Upper at a quarter to ten, and Beth-horon the Nether at 25 minutes to 11. No people would guide us to *Kefr Saba*, giving as a reason that they were at enmity with all the country of the *Jebel Nâblus*.

Passed the ruins of *Khuarjah* [? Khurbet Dariyah]: under the village of *Shilta* at 10 past 12. We had now left *Jimzu* on our left. Before half-past 12 we were at *Nedin* trending northwards. *Beit Nebâla* at 2.20. *Deir Tarrif* at 3.29. Here the people would not serve as guides towards *Kefr Saba* declaring that they would not go a two days' journey for anybody.

Our journey was now due northwards: *el-Tireh* at 3.5, *Awali* [? Kbleh] at 4.20, and in five minutes more at *el Mezeir'ah*. Between these two villages is a small ancient building with a portico of two columns and two pilasters [antae] of Corinthian order. The capitals of the pilasters, being more perfect than those of the two round columns, are really beautiful. The doors and cornices of the front of the edifice within the portico remain entire. The capitals of the columns have been injured by positive violence. The whole has a warm tinge of yellow from the effect of time. I observed that though the elevation is not great (the shafts not exceeding 9 feet in height) the columns swell into larger diameter near the middle. The door is bordered by a deep simple moulding and in the upright doorposts there remain the same cuttings for stone bolts of the door as we observe in the ancient sepulchres near Jerusalem. The people call this edifice the *Burj* or "tower." The Muslims have placed a *Mihrâb* in the within, and this is the first time that I have seen an undeniably classic edifice converted to Muhammadan purposes. The roof has been repaired and some patches of repair effected in various parts . . . . Not far distant as we kept our road we found traces of houses and a reservoir.

A very conspicuously situated village on our right called *Mejdel Yâbâ* is the seat (*dâr*) of an influential sheikh named *Sadek*. Indeed as we coast along northwards, parallel with the hills of Ephraim, we see these studded with villages, but on the wide plain itself there is a sad want of population. I saw no villages but those whose names I have written.

At 4.50 we arrived at [the castle of *Kal'at-el-Ain*, which has been so often described that it is not necessary to repeat the account of it in this paper].

Most of the great plain has borne some harvest this year, but where are the people? The sun set and we marched onwards towards the pole-star, and towards an enormous fire which glared before us made of stubble of [sesame] in the fields near some village. *Jiljûlieh* at 6.30, *Kefr Sabâ* at 7. But we in our ignorance went further, and had to return, thus losing three-quarters of an hour, and dismounted at a little before 8, having been twelve hours in the saddle.

Saturday 30th [*recté* 20th] . . . . Here also the people refused to guide us on our way towards Nazareth, under the general pretext of being in feud with all the villages beyond the next one to them: no money could induce them. I sent for the sheikh, but they said he was away at the mills of the 'Aujeh.

Kefr Sâba is a miserable place. I picked up a few tesserae near a small piece of old wall close to our tent, but except these and a small fragment of a column I saw no remains of ancient Antipatris. Indeed I cannot believe that this is its real site. The words of Josephus are very clear—"After this . . . . Herod erected another city on the plain called Caphar Saba . . . . where a river encompassed the city itself . . . . This he named Antipatris . . . ." Such a description is ridiculously inapplicable to this village, but might be perfectly exact for the site of *Ras el-'Ain*. Besides, the words in Greek assert that it was the *plain* that was named Caphar Saba . . . . It may possibly be that the present village had previously [given its] name to the adjacent plain . . . . but Ras el-'Ain gives us a much more worthy idea of the military station at which St. Paul halted . . . . than this miserable place where there is no other water than a rain cistern . . . .

Mounted at 8.30 and soon passed *Kilkîlieh* on our right: this was the village to which we had gone by mistake the night before; it lay east of Kefr Sabâ. Our course after this lay due north, or one point to the west, still upon the extended plain with a line of mountains abounding in villages on our right. *Kulunsaweh* at 10.15, where there is a remnant of an Arab castle, a well, a large sycamore tree, and date trees. *Miskeh* we heard of as being out of sight on our left. About 11 o'clock we came among extensive cotton plantations, of which we had abundance afterwards all through the territory called Jebel Nâblus. At "Tool el Kroom" [*Tûl Kerûm*] by 11 o'clock. Before half an hour we were abreast of "Ckackoon" [*Kâkôn*], which is on a tell rising from the plain: a

conspicuous place a good distance to the left. Soon we reached "Kefr Subb" [*K. Sib*], where we met a European in Arab dress riding: passed without speaking. He had a very delicate, almost toy of an elegant fowling-piece at his saddle bow. No milk to be got from flocks of goats—indeed, never since we left Jerusalem. Met a train of camels carrying cotton. Rested from 12.30 to 12.37 under some olive trees near *Zeita*, with a delicious slight breeze under the boughs, not to be found beyond the reach of their shadow. It is an ancient site, known to be so by tesserae and broken pottery and large dust hills. On immediately descending to lower ground we found that the hill down which we had come was crowned on our left hand by an ancient village called "Caffeen"[1] having fragments of ancient buildings about, and I saw one piece of a very large column. Approaching towards the hills, leaving our line of due north, the border country seemed to be very well peopled.

At 2.15 we were at *Bâka*, heading N.E. Plenty of cotton plantations, and the men, as throughout the Jebel Nâblus, wearing their caps dangling on one side, all armed; and the women in white (not blue), with red sashes and head scarfs. They advised us not to attempt travelling after sunset, and said that we could not possibly get beyond *Umm el-Fahm* by sunset; but it being Saturday, I was most anxious, by means of a forced march, to reach Nazareth for our Sunday's rest.

By 2.30 we commenced ascending among shrubs and other trees; at 2.45 we saw the sea once more. There were white clouds to the S.S.W. The oak and kharûb trees were taller as we advanced, and for some time we proceeded in a slight hollow between two well-wooded banks, among the varied greens of which the bright colours of my people gave pretty effect. The oaks (evergreen) averaged 30 to 40 feet in height. When our path ascended a bank we had an extensive prospect all around of forest scenery of the evergreen oak, and at our feet were loose heaps of beautiful ancient stones, all large and rebated [drafted ?] at the edges. There were two or three mud huts adjoining, and the people called the site *Khurbet el Wady 'Árah*—into which Wady 'Ârah we had now to descend. It is a very long plain, with harvest-stubble and cotton plantations, of perhaps half a mile wide, between two parallel lines of hills well

[1] Not on map.—[R. A. S. M.]

clothed with fine evergreen oaks, farther than the eye could reach. This is the very country described in Joshua xvii, 16, 17, 18—the wood country and the mountain given to Ephraim and Manasseh, which they might cut down: and of which a village still bears the orientally expressive designation of *Umm el-Faḥm* ("Mother of Charcoal"). I observe that the cotton is sown, if not always at least generally, in a dark fat soil. Following the wady we proceeded N.E. by E. After an hour the valley became less beautiful, the ground less cultivable, and the trees in the hills more scattered and rare. Uncertain of our way, we mounted towards a small clean village half-way up the ridge on our right, to enquire the way and procure a guide if possible. This village we found to be that which gives name to the whole valley, viz., "'Arah" [*Ar'arah*] Got a guide for 30 piastres, after near an hour's trouble . . . and started afresh at 4.45 . . . .

Continued along the same valley: the evening flies very troublesome to the horses, and the best horses feel this plague the most. More forest scenery of oak, the trees bearing gigantic acorns. Then the verdure ceased, and we had but bare, rugged hills. At one spot was a spring, close upon the left of our road, with a wely and fruit trees and myriads of little singing birds. Here we filled the water-bottle (*ma'tara*), and the sun set, throwing a glorious red upon the clouds . . . . . .

Umm el-Faḥm we left on our right, and night came on, our old guide with his little donkey going merrily on, sometimes over dangerous parts of road. Crossed the Kishon by starlight at 7.15—not a wide stream in that place at that season of the year. On and on monotonously, over the great plain of Jezreel—ascended towards Nazareth, at a different part of its hill country from that to which we had been accustomed on the way from Jenîn. Then wound round and round tediously among broken rocks and trees, and at length reached Nazareth at 12.15, nearly sixteen hours after leaving Kefr Sabâ . . . . . .

Sunday, 21*st* . . . . Visited by two gentlemanly sort of monks, one being the deputy chief of the Convent, the President himself being away. These Spaniards always find their way into political conversation . . . . .

Monday . . . . In the street before us are some Anazi Arabs, squatting on the pavement, with beautiful though rough horses in their society. Before taking our departure I went over to the

Convent to return the visit of the monks. There are beautiful morsels of floral sculpture carefully inserted for preservation in the walls near the gateway. Mounted at 10.20, and started for Acre viâ *Seffûrieh* (Sepphoris). Just before Seffûrieh there was a flock of horses feeding in a field. We were at Seffûrieh by 11.35. Some squared stones and heads of squared pilasters are visible about. A little beyond the village I turned aside from the road to a lid of an ancient sarcophagus and traces of quarrying. The town stands in a conspicuous and commanding situation on a low hill rising from a plain . . . . .

On our left we had a view of the long "sides of his Carmel," very dark blue on that cloudy day. People were picking olives before they were ripe. At 12.20 we reached the well and ruined khan of *Dauwich*: here some rain fell for a few minutes. We were now in a narrow plain, a branch of which, upon our right, retires by Hattîn almost to Tiberias. A good many trees scattered about —then a small kind of glen, issuing from which we had *Shefa 'Amr* on our left, a handsome-looking village said to be as large as Nazareth. Here we entered upon the great plain skirting the Mediterranean. Saw Acre at 2.30. Among the fields I picked up a cannon-ball. . . . On arriving at Acre at 4.10 the first sounds we heard were those of a bugle, proclaiming our approach to a garrisoned town.

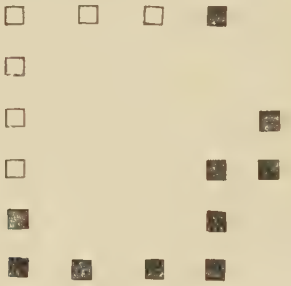
III.

At the meeting of 30th November, 1849, Mr. FINN read a description of "A Temple of Baal in Phœnicia."

The descriptive part of this Paper is as follows—I omit some out-of-date etymological and other speculations about druids, etc.:—

Going northwards from Sûr [Tyre] towards Saida [Sidon] on the Plain road, where a village called "Sairee" [*Sêriyeh*] stands upon the line of hills running parallel to the sea at our right, I observed a number of tall upright stones to our left, which did not appear to be round classical columns—but, nevertheless, to be placed in some kind of arrangement. The guide told me that the place is called the *Sûk* or Market of Sêriyeh, and said that the country people believed the big stones to have been reapers in some ancient time, whom God for their wickedness had turned into stone . . . . . .

I found a parallelogram of large squared upright stones, standing separate from each other at intervals (not always uniform intervals) of two to three yards; and two such stones in advance of the parallelogram on its eastern side, which probably formed some kind of portal. The stones of the parallelogram were standing in this form :—



while the others which would complete the figure lay prostrate, some of them a little removed from their places. All the stones have been chiselled into regular angular form, rather more broad than thick, and the tallest one now standing rises six feet from the present surface of the ground. I could find no chiselled indications of their having been connected by transverse lintels . . . . No altar is visible . . . . I observed traces of a more regular building having stood near it, and picked up a piece of tesselated pavement within the enclosure, but this was probably brought from some other place, perhaps from the more regular building just referred to . . . .

(*To be continued.*)

NOTES ON THE GEOGRAPHY OF PALESTINE.

By the Rev. Caleb Hauser, M.A.

(*Concluded from Q.S.*, 1907, *p.* 290.)

XI. *Nebaloth.*—In a list of Moabite towns which Hyrcanus promised to restore to the Nabatheans (*Ant.* XIV, 1–4) Nebaloth occurs between Libba (*Libb*) and Arabatha (*Rabbah*). Nebaloth is evidently the *Balu'a* between Libb and Rabba.

XII. *Cosmos* of Judaea east of Jordan, a city which Ptolemy places $\frac{1}{6}$ of a degree north and $\frac{1}{12}$ of a degree east of Libias, was situated at *Mâhas*, an important site, located as required with regard to *Tell er Ramch*, where, according to the testimony of Eusebius and Jerome (*Onomasticon, sub voce* Beth Aram), Livias must have been situated. The Arabic *Mâhas* has preserved the radicals of *Cosmos* in a slightly different order. The final *s* has fallen out and the *m* has taken its place before the guttural. The change from *k* to *h* is of frequent occurrence.

XIII. *Pentacomia*, a bishopric of the Fourth Palestine, in the *Notitia Altera Ecclesiastica* (Reland, p. 219), named after *Dionysia* (*Tibneh*), and after *Dionysia* and *Constantinianis* in the *Latin Notitia* subjoined to the *Geography of the Five Patriarchates*, by Carolus a St. Paulo (Reland, p. 224), seems to have comprised five of the six places at the head of Wâdy Yabis, of which Maḥneh (Mahanaim) was the principal one. In both of the above named *Notitiae* the more southern Tricomias follows. Tricomias in the *Notitia Dignitatum* follows *Animotha* (?Ramoth) and precedes *Ziza*. *Canothas*, *Canofados* (*Umm el-Kenâfid*), follows *Tricomias* in the Ecclesiastical Notitiae. The position of Tricomias to the north of Umm el-Kenâfid is therefore assured, and still farther north (yet south of Tibneh) we must find Pentacomia. The *Notitia Ultima* substitutes *Paramboli* (Reland, p. 224), and also the *Notitia* subjoined to the old *Codd.* of the *Histories of William of Tyre* (Reland, p. 228). Now the *Septuagint* has *παρεμβολή* for Mahanaim, with which Reland has correctly identified the ecclesiastical Paramboli. Compare מחנים = *encampment* with *Phrynichius* (*ed. Lobeck*, p. 377), *ad vocem παρεμβολή*. Pentakomia was therefore quite probably a cluster of five villages, of which Mahanaim was one.

XIV. *Kalkiliah*.—In the MS. copied by Palmer (*Desert of the Exodus*, p. 552) we read: "and from Phantia as far as Cala and Leia." Mention is made of "the village of Kale and Leia" and of "the great road from Lydda to Kale and Leia." *Καλη και λεια* must be read as one name, *Calecilia*. It was situated at *Kalkiliah*, a modern village near the road from Lydda northwards.

XV. *On the Topography of the Battle of Mount Gilboa*.—The following quotations from Josephus may serve to elucidate the Biblical narrative: "About the same time the Philistines resolved to make war against the Israelites, and sent to all their confederates that they would go along with them to the war *to Reggan* (*near the*

city Shunem), whence they might gather themselves together and suddenly attack the Hebrews" (*Ant.* VI, 14, 1). "But when he (*i.e.*, Saul) heard that the Philistines were already came and had pitched their camp *near the city Shunem*, situate in the plain, he made haste to oppose them with his forces; *and when he was come to a certain mountain called Gilboa, he pitched his camp over against the enemy*" (*Ant.* VI, 14, 2).—*Reggan* may be identified with *er-Rihâniyeh*[1] at the northern base of Mount Gilboa. As this place is but three miles from Conder's Aphek, a mustering of the Philistine armies at an Aphek in the Plain of Sharon becomes improbable; and as Josephus locates Reggan *near the city Shunem*, he could with equal propriety state that the Philistines, whose camp was spread out in the Valley of Jezreel, in the direction of Shunem, *had pitched their camp near the city Shunem*. His account and that of 1 Sam. xxviii, 4, are parallels. That the Philistine encampment extended from near er-Rihâniyeh to a point south of Shunem, seems probable also from the description of the Israelite position. This was "on Gilboa" (1 Sam. xxviii, 4) "by the spring which is in Jezreel" (1 Sam. xxix, 1), "*over against the enemy*" (*Josephus*), that is, above 'Ain Jalûd on an elevation at the base of Mount Gilboa (*Tent Work*, p. 124). Saul was obliged to assume the defensive; but as an attack on his elevated position would have been extremely hazardous if conducted from the Valley of Jezreel below, the Philistines found themselves compelled to remove their encampment towards Aphek (*cp.* 1 Sam. xxix, 1), their lines probably extending from the Nahr Jalûd to the heights of Gilboa. The Philistines opened the battle (*Ant.* VI, 14, 7), probably by ascending the heights at Nûris, and thence making an attack. The Israelites in repelling this attack, would be drawn from their formidable position above 'Ain Jalûd, and brought into contact with the enemy's superior numbers on Gilboa. The right and the left wings of the Philistine army swooping along the base and summit, respectively, of Mount Gilboa, perhaps cut off the retreat of Saul and his sons; who, however, must have been able to cling to the summit of the mountain and carry the battle to its eastern verge, as their bodies were subsequently exposed to view on the walls of Beth Shan (1 Sam. xxxi, 12). All discrepancies disappear entirely from the various narratives if we may assume that (Josephus not using the

[1] The *g* (γ) in Reggan represents some aspirate of the Hebrew, probably (as quite frequently) an Ain.

ipsissima verba of the Philistines) Reggan did not come into existence until after this battle, or was but an insignificant village at the time. As the encampment several miles south-east of Shunem is said to have been "in" or at Shunem (1 Sam. xxviii, 4), so also the removal of the camp to the locality of er-Rîhânîyeh and Mount Gilboa could be designated a gathering together of the armies to Aphek אֲפֵקָה (1 Sam. xxix, 1).

XVI. *Shihor-Libnath.*—The maps of the Fund with Colonel Conder, who is inclined to agree with Gesenius, identify with the Nahr Namein, the classical Belus. But Josh. xix, 26, seems to indicate a position south of the Carmel Range, and Josh. xvii, 11, places Dor, as within the limits of Asher, north of this stream. Dillmann's proposed identification would better suit these notices; but the Nahr ez Zerḳa, or Blue River, could never have been named the Shihor-Libnath or "muddy white." We therefore prefer to identify with the *Bdellopotamus* (a stream whose waters must have had the appearance of bdellium), the boundary between the archiepiscopal see of Joppa and the metropolitan see of Caesarea (MS. in Appendix to *Desert of the Exodus*, pp. 550 and 552). The very words "Bdellopotamus or *Sioran*" seem to show that the stream was known as the Biblical *Shihor-Libnath*. It is the modern Nahr Iskanderûnah, named *Wady esh Sh'aîr* in its upper course.

XVII. *The Land of Tob.*—The P.E.F. map shows the Land of Tob in the vicinity of *Tibneh*, the site of Ptolemy's Dion (*Dium* = *Dion* – *Tibn*), the classical Dionysia, as suggested in a previous paper (*Quarterly Statement*, 1907, p. 46). Colonel Conder, in *Heth and Moab*, and Prof. G. A. Smith, in *Historical Geography of the Holy Land*, identify it with *et Taiyibeh* several miles north of Tibneh. Et Taiyibeh certainly is Tob, and the name "Land of Tob" must apply to the surrounding country. Here we also find Sibia, the ancient Sebee, where Jephthah "in his own country in the Land of Gilead" was buried (*Ant.* V, 7, 12). The caves of Sibia were perhaps the retreat of Jephthah and the "vain men" (the versions: "plunderers") with him.

XVIII. *Asnah* (Josh. xv, 33) seems to be represented by the modern *Kh. Ghasheinah*, near Beit 'Atab. The changes from Aleph to Ain and from Ain to Ghain are possible. Perhaps Kh. Ghasheinah is the *Bethasan* of the Onomasticon, incorrectly identified with Ashan, which is farther south.

XIX. *Cherith*, כרית (or כורת ?), χοππαθ (B.A.L.), χοππα (Eusebius), Chorath (Jerome). Elijah, having appeared before Ahab—presumably in Samaria—and predicted the coming drought, was instructed to turn to the east and hide himself in the torrent-valley of Cherith, which is "before" or east of Jordan (1 Kings, xvii, 35); and after the Cherith had run dry, he removed to the Phoenician Zarephath. We are therefore quite safe in identifying Chorath with *el Kâra*, through which Wâdy el Hummâm, a perennial brook, fed by copious springs, descends to the Jordan Valley opposite Beth Shan. The loss of the final consonant is paralleled in Neballat (Beit Nabâla). Compare the testimony of the Onomasticon.

XX. *The Rock Oreb*, *Orbo* (so, *Bereshith Rabba*), *Aorabi* (Jerome), *Harabin* (Bertius); *vide Relandi Pal.*, pp. 913 *sqq.*—As the men of Mount Ephraim at Gideon's command took all the fordable waters in the lower Valley of Jezreel and the fords of Jordan in these parts as far north as the principal one at Beth Barah, the Bethabara of the New Testament, it is very natural to suppose that the Rock Oreb, where the Midianitish Prince Oreb was slain, was situate opposite this locality beyond Jordan (Judges vii, 22–25). So situated, almost due east from the ford of Bethabara (as identified by Colonel Conder), there is a ruin preserving the name, *Arbain* (compare the *Aorabi* of Jerome and also *Harabin*)—Orbo anciently, in the neighbourhood of Beth Shan (Bereshith Rabba). Eusebius and Jerome incorrectly locate the place west of Beth Shan.

A SKETCH OF THE GRAMMATICAL STRUCTURE OF THE NURI LANGUAGE.

By R. A. Stewart Macalister, M.A., F.S.A.

The Nowar (singular, Nuri) are the despised nomads, akin to the gipsies and tinkers of Europe, who wander among the villages of Palestine, supporting themselves by blacksmith work—and theft. Like the gipsies, they have a language, which they speak among themselves. I have a considerable collection of words, phrases, and

other material for the study of this language, but it will need amplification, and, probably, correction, before I can venture to make it public. I think, however, I am in a position to indicate, in this preliminary sketch, the main outlines of the tongue, which I have found to be in some respects remarkably interesting.

I. Phonology.—Into this arid but important branch of the subject I do not in the present Paper intend to enter. I may, however, remark that the rough gutturals of Arabic are rarely used in Nuri, except in words derived from Arabic. Even in these, sounds peculiar to Arabic are sometimes softened, and appear to be so to the ear of an Arab. Thus, in a story taken down for me by my foreman, Yusif, in Arabic letters, the word قال *ḳâl* ("he said") constantly appears as كال *kâl*. Yusif assured me that he had written as he heard. On the other hand, the Nowar generally exaggerate the gutturals in speaking Arabic: the same unconscious tendency is sometimes observed in the speech of the few Europeans who acquire a good command of Arabic after adolescence.

II. Vocabulary.—Of the vocabulary of the language it may be said that about three-fifths (roughly speaking) is Aryan, and has easily recognizable cognates in other Romani dialects and in the Indian and Persian languages. The remaining two-fifths are loan-words, sometimes more or less modified. As might be expected, the overwhelming majority are from Arabic: some few, like *guzel*, "pretty," are Turkish; still fewer (as *fonyâr*, "a lantern") are Russian.

III. The Article.—Nuri does not possess a native definite article. The Arabic article *el-* is sometimes borrowed, but appears preferably to be attached to adjectives limiting and qualifying the substantive rather than to the substantive itself: as *kal kerda pariski el-mufalik*, "he said to the brother—the foolish one."

There is a suffix *-ik*, *-ika* (after vowels *-k*, *-ka*) affixed to substantives which, so far as I can make out from a comparison of the examples I have of its use, appears to have an indefinite sense, so that its *absence* supplies the place of a definite article. It is probably cognate with the numeral *yakák*, "one."

IV. The Substantive.—I cannot detect any indication of a distinction of grammatical gender in Nuri. In the Romani of Rumelia (Paspati,[1] p. 41), this distinction is difficult to detect.

[1] *Études sur les Tchingiane's ou Bohémiens de l'Empire Ottoman*, Alexandre Paspati. Constantinople, 1870.

There are two numbers and seven cases in Nuri: nominative, accusative, genitive, two datives, locative, ablative. The use of the two datives and the locative is not very clearly defined, a speaker mixing them together in the course of a single narrative. But speaking generally, it appears that the first dative is used after verbs of motion towards; the second after verbs of speaking and giving; and the locative is, as usual, employed to denote rest on or in the place or object in question.

I have not discovered any example of an instrumental case, such as exists in Rumelian Romani (Paspati, p. 50); and I regret to find that there does not happen to be an example of the locative and ablative plural in the specimens of the language I have so far obtained.

Some of the cases have more than one form. It will probably appear ultimately that there is more than one declension, but for the present it will suffice to set forth the inflexion of a substantive under one scheme.

	Singular.	Plural.
Nom.	*kuri* (a house).	*kurini* (also *-iya*).
Acc.	*kuris*.	*kurin*.
Gen.	*kuriska*.	*kurinta*.
Dat. I.	*kurita*.	*kurima*.
Dat. II.	*kuriski* (also *-iska*).	*kurinka*.
Loc.	*kurima*.	— ?
Abl.	*kuriak* (also *-ta*).	— ?

The place of the genitive is sometimes taken by a compound expression exactly like the *tatpurusha* compounds of Sanskrit, in which the governed word is prefixed, in its crude form, to the governing. Thus *ghûla-kurita* (instead of *kurita ghûliska*), "to the house of the demon."

Two substantives co-ordinated in English by the conjunction "and" may be united in Nuri into a compound, like the *dwandwa* compounds of Sanskrit, but differing from them in taking the inflexions of the singular number. Thus *harûri kana-manas* (instead of *kanas wa manas*), "you take a loaf and an egg."

The accusative termination *-s* gives place to the indefinite termination *-k* above referred to. Thus the above sentence might also be rendered *harûri kanak wa manak*.

One of the most remarkable features of the language must now be mentioned. As in Arabic, the various persons are provided with a series of suffixes which take the place of possessive pronouns and pronominal objects of verbs—in Nuri, as we shall presently see, they also supply most of the pronominal *subjects* of verbs. The suffixes in Nuri are—

Person.	Singular.	Plural.
1	*ûm*	*umin*
2	*ûr*	*urin*
3	*ûs*	*usin*

(the *u* being dropped after a vowel). Thus we have *par*, "a brother"; *parûm*, "my brother"; *parûs*, "his brother." So far as I know, Persian is the only Aryan language that has adopted this mode of expression.

But Nuri goes a step beyond Persian. Here a substantive with a pronominal suffix is treated as a simple substantive, and is declined as such. For instance, *kurim*, "my house," may be declined *kurimis*, *kurimiska*, *kurimta*, etc. This mode of construction is thoroughly non-Aryan and thoroughly non-Semitic; it seems to indicate a contamination of Nuri accidence by the influence of some Mongolian language. For a precisely similar method of construction is found in Turkish, though the formative syllables are different.[1] Here we have *ev*, "a house," declined in the singular *ev-in*, *ev-eh*, *ev-i*, *ev-den*; *ev-im*, "my house," is declined *ev-im-in*, *ev-im-eh*, *ev-im-i*, *ev-im-den*.

In Nuri, the substantive with pronominal suffix can form a *tatpurusha* compound, like a simple substantive, to express the genitive: as *pinim-patrama*, "to my sister's sons."

V. The Adjective.—Adjectives regularly follow the substantive they qualify. As a rule they do not admit of inflexion; but sometimes (principally, if not exclusively, when used predicatively) they are treated as substantives: thus, *kali*[2] *kan ibkarini*, "the sheep were hungry."

VI. The Numerals.—The numerals are essentially similar to those of other Romani dialects, and more or less resemble those

[1] The pronominal suffix of the first person singular happens to be similar in Turkish and in Nuri, but the others are quite different.

[2] *Kali* is probably singular in form here because it is considered as a collective noun.

of the Asiatic Aryan languages. They have, however, some notable peculiarities.

The units are—

1	*yakâk.*	4	*štarâs.*	7	*hutîs.*
2	*diyâs.*	5	*panjâs.*	8	*štar-wa-štar.*[1]
3	*taranâs.*	6	*šašâs.*	9	*štar-wa-štar-wa-yakâk.*

The terminal syllable of 4 7 is used in counting only, and dropped when the numeral is used with a substantive. Compare the precisely similar use of the particle *a* in Irish; in counting, *a ceathar, a cuig, a sé*, "four, five, six" but in enumeration, *ceathar éin* "four birds," *cuig madraidhe* "five dogs," etc.

The total loss of words for eight and nine, which leads to strangely complex expressions in the higher compounds of these numbers, is a remarkable phenomenon. In Rumelian Romani the same singular lacuna occurs, but it is more conveniently filled by the modern Greek numerals (Paspati, p. 77). The Anatolian nomads, who are spoken of in Palestine as the Kurdish Nowar, have preserved these numerials: Paspati reports *haisht*, and *neya* or *nu* from Anatolia, and the same words were heard by the late Herr Miklasiewics of Safed, in (I believe) the Hauran: in a short vocabulary drawn up by him, which his son, Herr Ladislaus Miklasiewics kindly permitted me to copy, I find the first twelve numerals given thus: *yeki, didi, tron, schtar, penez, shesh, haut,* HOSCHT, NAH, *desch, deschyeki, deshdidi.* In this paper, however, I am not concerned with the Kurdish dialect of Nuri, but with that of the so-called *Zutt*, which seem a more especially Palestinian tribe.

The tens are—

10	*dasâs.*	40	*štarâs.*	70	*hutdâs.*
20	*dîs.*	50	*nims.*	80	*štar-wa-štar-dâs.*
30	*tarandâs.*	60	*šašdâs.*	90	*sî ila dasâs.*

Here the chief point to notice is the substitution of *nims*, that is *nim-si*, "half a hundred," for *panjdâs*, "fifty": and the formation of 90 by subtraction ("a hundred minus ten"). The use of the Arabic conjunctions *wa, ila*, in the sense of "plus," "minus," will be noticed.

The intermediate numerals are formed by addition of the proper unit to the preceding ten—the *âs* termination of nos. 4–7 being

[1] Or sometimes *hût-wa-yakâk.*

dropped. Thus *dâs wa yakâk*, 11; *šašdâs wa hût*, 67. Subtraction from the following ten is used to express 19 (*dâs ila yakâk*) and the numbers 90-99 inclusive (*sí ila štar-wa-štar-wa-yakâk*, "a hundred less nine" = 91; *sî ila panj* "a hundred less five" = 95). The expression of numerals by subtraction is not found in Rumelian, though some instances appear in Anatolian Romani (Paspati, p. 79).

The hundreds are *sî*, *dí sî*, *taran sî*, *štar sî*, and so on to *štar-wa-štar-wa-yakâk sî*. "A thousand" is *dâs sî*.

For clumsiness it would be difficult to beat the Nuri expression for 989, which fortunately does not require to be used frequently—*štar-wa-štar-wa-yakâk sî wa štar-wa-štar dâs wa štar-wa-štar-wa-yakâk!*

VII. The Pronouns.—The personal pronouns are *amá* I, *atú* thou, *arsak* he, *amah* we, *atmah* ye, *ahu* they.

The place of the genitive and accusative of these pronouns is taken by the pronominal suffixes affixed to substantives and verbs respectively. The place of the other oblique cases is taken by the same suffixes affixed to suitable prepositions.

The demonstrative pronoun, *apús*, is used in narration in place of the third person singular and plural. It is declined like a substantive.

There is no relative pronoun in Nuri, its place being supplied by the colloquial Arabic relative *illí*. As in Arabic, it requires to be followed by the pronominal suffix attached to the verb in the relative clause; as *ka mana* illi *landur*-us "where is the loaf you brought?" (colloquial Arabic *yên ir rajîf* illi *jibt*-u).

The principal interrogative pronouns are *kan*, who? *kík*, what?

The negative "no one," "nothing" is expressed by *ni . . . kiyâk*; as *ni laherda kiyâk* "he saw nothing."

VIII. The Verb.—The following is a synopsis of the chief inflexions of the verb, so far as I have recovered it. There seem to be three tenses in the indicative—past, present, and future. These are as follows:—

Past:	*kerd-um, -ur, -a; -un, -us, -usin* (I made, did).
Present:	*ker-umi, -uri, -usi; -duni, -dusi, -usini.*
Future:	*kernatš-um, -ur, -i; -in, -is, -usin.*

It will be noticed that the possessive suffixes are used to form most of the personal inflexions. The suffix used as object follows the suffix used as subject: thus *marnatš-um-ur*, "I will kill you."

There is also an imperative, of the form *kerišti* or *keritši*, second plu. *kerištis* or *keritšis*, and a participle *kerdinda*. I have notes of some other verbal forms, but prefer to say nothing definite about them at present.

The substantive verb is "reduced to its lowest terms," being simply the Arabic *kân*, "was," used in the past without inflexion of number and person. For the present and future the verb is, as in colloquial Arabic, omitted: as *kik namûr*, "what [is] your name?" (compare colloquial Arabic *šu ismak*).

Much use is made (as in Hindustani and Persian) of periphrases involving the auxiliary verb *kerd-*, "make, do"; especially with adjectives and participles borrowed from Arabic. Thus, *rasrusma madd kerda hastusis*, "he pointed [lit. 'made stretched'] his hand at his shadow."

A desiderative periphrasis, borrowed from colloquial Arabic, consists of the word *bidd* with the Arabic pronominal suffixes, united to the present of the Nuri verb, shortened by the loss of the final *i*. Thus, *biddi jam'*, "I want to go."

IX. The Particles.—But little need at present be said about the Adverbs, Conjunctions, and Prepositions. The chief interrogative adverbs are *mikran*, "whence?" *katerdi*, "where?" *kenda*, "whither?" The qualifying adverbs are, as in colloquial Arabic, of the same form as the corresponding adjective. They are sparingly used.

Prepositions are used only when the declensional inflexions are not sufficiently definite to express the meaning intended.

The majority of the prepositions are native to the Nuri language: on the other hand, I do not find anywhere in my notes a single native conjunction. The latter, when required, are borrowed from Arabic; but as a rule a narrative in Nuri takes the form of a string of short jerky disconnected sentences, reminding the hearer of nothing so much as the conversational mannerisms of Mr. Alfred Jingle!

In conclusion, I would repeat what I said at the beginning—that this Paper is meant merely as an outline of the Nuri tongue. A good deal of "filling-in" will be necessary before a complete picture can be presented to students of such obscure languages.

SOME FURTHER OBSERVATIONS ON THE "CRAFTSMEN'S GUILD" OF JUDAH.

By R. A. Stewart Macalister, M.A., F.S.A.

In the *Neue Kirchliche Zeitschrift* for October, 1906 (Vol. XVII, pp. 753–763), appears an article entitled, "Die in Palästina ausgegrabenen altisraelitischen Krugstempel," by Dr. Sellin, in which he courteously but adversely criticizes the theories I have put forward regarding the potter's stamps found in recent excavations.[1] I may ask permission to reply briefly to these comments, meanwhile thanking their author for his kind references to the Paper in which my views were set forth. I shall take the various points in the order in which they occur in Dr. Sellin's Article.

(1) In my Paper I stated that, in order to test my conclusion that the *Shocoh* jar-handles were the latest of the four with royal stamps, I asked the foreman of the excavations which of the four groups had, in his opinion, been most often picked up *on the surface of the ground*. He gave me the answer I had expected, "Shocoh"; but if he had given another answer it would not have affected my position. For the other three royal stamps have also been found on the surface. I merely brought forward this point, not so much as an argument, but as an interesting corroboration. The chance occurrence mentioned by Dr. Sellin, that a casual visitor to Tell ed-Duweir (who, to my personal knowledge, did not spend more than about an hour on the mound, happened to pick up a Ziph and a Hebron handle, but no Shocoh handle, does not disturb the impression which I share with my foreman, that of *all* the jar-handles with royal stamps found on the surface of the ground, wherever picked up, *the majority are those bearing the name of Shocoh*.

(2) "It is notorious," says my critic, "that the chronicler has often mistaken town names, and sometimes tribal names, for personal names. The fact remains that, of the four names of the [royal] stamps, three are already well-known town names, and that Hebron alone appears as a Levitical personal name (Ex. vi, 18; 1 Chron. v, 28)[2]; but Ziph and Shocoh, never in the Old Testament."

Now I, for one, cannot help feeling that those who assume too freely this "notorious" fact, create gratuitous difficulties for themselves. If certain of the personal names in the pedigrees of Chronicles, which

[1] See *Quarterly Statement* for July and October, 1905.

[2] vi, 18, English version.

happen to be also well-known names of towns, are to be taken as denoting those towns, how are we to interpret the statements made about the owners of those names? When the Chronicler speaks, for example, of "Mareshah, the father of Hebron," what does he mean? Naturally, that Hebron was founded by a colony from Mareshah. But Hebron is known to be one of the most ancient cities in Palestine: Mareshah, which is identified with Tell Sandahannah by the inscription of Apollophanes, has been shown, by excavation, to be not older than the Hebrew monarchy. Once we begin interpreting these names as town- or tribe-names, there is no special reason why we should stop at any point, and we will inevitably find ourselves landed in a maze of anachronisms and confusions from which the only escape is a return to the simple theory that the genealogies record the physical relationships of human individuals, and that some of these individuals happened to have names identical with names of towns—a possibility already admitted in the case of Hebron.[1] In some cases the formula, "father of Beth-lehem," father of Gedor," and the like, seems to denote that the person so distinguished held a certain definite office in the town mentioned; but that *Völkerwanderungen* are anywhere so much as hinted at, or that it is necessary to assume that the Chronicler has misunderstood his authorities, seem to me assumptions wholly gratuitous. Possibly the *place* names may have had a different vocalization.

Indeed, I would go farther, and say that this whole theory of the personification of communities by the names of individuals seems to me to be overdone to an absurd extent; nowhere so much as in the patriarchal narratives. There is, of course, no merit in endeavouring to minimize the great difficulties in the way of accepting the literal historicity of these stories; but I find it much easier to believe, for example, that a wily Oriental, after meanly defrauding his father and brother, ran away and took refuge with his uncle, on whom he continued to practice his talent for underhandedness, than that two Bedawin tribes, under any circumstances, fused together into one! The one was a matter of daily occurrence in the East at the time of the Tell el-Amarna tablets, and is a matter of daily occurrence in the East in this current year. The other simply *does not happen*, unless, possibly, as a matter of the rarest and most extraordinary exception; even now, although all the diverse gods and totems, and separating influences generally, have given place to the unifying creed of Islam, and though it would obviously be to the interest of the tribes to make common cause against an alien domination.

So it does not appear to me at all proved that the names in Chronicles are other than personal; and I would simply answer the statement that

[1] The alternative theory that some scholars have adopted—that the genealogies are mere arbitrary inventions—is refuted by their form. They would surely have been much more coherent had they been an artificial production.

"Ziph never appears in the Old Testament as a personal name" by pointing to 1 Chron. iv, 16. Taking the text as it stands, without the emendations I have already proposed for it (which do not affect the point at issue), we read, "And the sons of Jehallelel, Ziph and Ziphah, Tiria and Asarel." Observe, the formula is not that already mentioned, "Jehallelel, the father of Ziph," in which case there would have been an ambiguity. Ziph here is one of four names; three of them are (as I suppose I may presume) admitted to be personal; but how then could a man be "father" of three children and one city? Is it that Jehallelel founded the city of Ziph? But could we conceive of anyone writing (say) "The sons of Hiel the Bethelite were Jericho, Abiram, and Segub"?

(3) Dr. Sellin remarks that it is a striking fact that the father's name is never added to those on the *royal* stamps, whereas it always appears on those without the symbol. And again, that the presence of the father's name on the *private* stamps is an indication that the potters were not in servitude; as slaves, actual or emancipated, substituted their master's name for their own family name.

The omission of the father's name can easily be explained by the desire for symmetry in the stamp itself, and by the fact that the words denoting the royal patronage were quite sufficient to distinguish the potters from all namesakes. Nor have I claimed that the family in question was literally in slavery. Shebaniah calls himself "slave of Uzziah," but Shebaniah's seal shows him to have been a person of considerable importance, and we can hardly explain his use of the word עבד as other than a respectful self-humiliation which did not necessarily imply the actual abasement of his family.

(4) "Three out of the four names on the royal stamps are recognized town names; but of the thirteen names on the private stamps, all are known to be personal names only."—This I admit, but see nothing more in it than a curious accident.

(5) "*Memshath* must also be a town name, because the feminine ending in ת is common in town names, but hardly ever, if at all, found in masculine personal names."—It is, naturally, rare in masculine personal names, but that it does appear sometimes is indicated by such names as תנחמת (Tanhumeth, 2 Kings xxv, 23; Jer. xl, 8), גינת (Ginath, 1 Kings xvi, 22), עלמת (Alemeth, 1 Chron. vii, 8; viii, 36; ix, 42), גנבת (Genubath, 1 Kings xi, 20), שמרת (Shimrath, 1 Chron. viii, 21). The name of the Phoenician king *Tabnith* is also in point.

And I think I have found one more mention of Memshath in the fragments of the book I have called the *Records of the Craftsmen*, which are scattered through the pedigree of Judah.

In chap. iv, 3, 4, is a much-confused passage, which reads in the English version thus: "And these were *the sons of* the father of Etam; Jezreel and Ishma, and Idbash: and the name of their sister was Hazzelel-poni:

and Penuel the father of Gedor, and Ezer the father of Hushah. These are the sons of Hur." It will be remembered that one point which I endeavoured to make, was that Bezalel the artificer was a member of this family, a close relative and contemporary of Memshath; and that in his pedigree, "Bezalel son of Uri son of Hur," the second step was to be omitted as simply a doublet of the third. I do not profess to see my way through all the difficulties of the passage just quoted, but it has occurred to me that it may be, perhaps, not impossible to see the name of Bezalel in the enigmatical "Hazzelel-poni." The "*poni*" termination is easily explained as a dittography of the following *Penuel*; and, premising that the Old Hebrew[1] ב and ה differ only by the slope of the two upper cross-bars, it is not difficult to imagine Bezalel (בצלאל) slipping into Hazzelel (הצלל).

The words preceding "Hazzelel-poni" (וישם אחתם) would then require to be explained; and I venture to suggest that they have been evolved by an over-zealous scribe out of an exemplar, possibly not very legible, which he had before him, and which simply read וידבש וממשת ובצלאל.[2] The passage in question would then read: . . . . "Idbash and Memshath and Bezalel and Penuel . . . . . these are the sons of Hur."

A further guess may, perhaps, be made about this passage, namely that for *Idbash* the original document contained another name nearly similar in outward appearance, namely, *Jabez*. This links the curious detail regarding the prayer of Jabez (iv, 9, 10, at present an entirely disconnected episode), with its setting in the genealogy where it finds a place. If the reader will write out these names (יעבץ, ידבש) in characters resembling those used in the Siloam Tunnel inscription, their similarity will be obvious.

Dr. Sellin has complained of the emendations suggested in my previous Paper, that "the wish is now and then the father to the thought." But surely such a criticism may apply to most emendations of ancient texts? For instance, I admit freely that in dealing with chap. iv, 16–18, I set myself a definite problem, which I wished to solve—to connect the names of Ziph and Hebron. The ease with which the problem solved itself, so to speak, was a great surprise to me; none but the most commonplace forms of corruption being assumed (confusion of similar letters, skipping due to homoeteleuton, and scribal attempts at correction). And I may anticipate a similar criticism which might be passed on the emendation of *Hazzelel-poni* proposed in the last paragraph, by mentioning that it happened to come into my head some little time ago, when I was engaged in something entirely different, and when I had not been giving any special thought to the questions raised by the jar-handles.

[1] In which alphabet the authorities on which the chronicler drew were necessarily written.

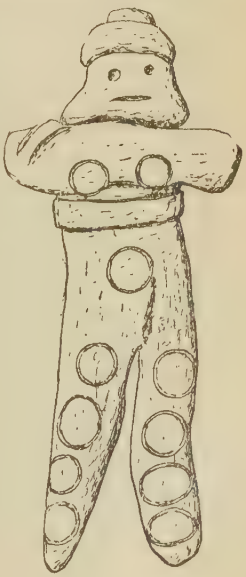
[2] Perhaps through an intermediate corruption, in which the ש of ידבש had been accidentally repeated, thus: ידבשושממשתוב.

(6) I objected to the "royal pottery" theory on the ground that the clay and technique of the jar-handles from the four supposed towns ought to be different, not identical. Dr. Sellin answers this by supposing that in all royal manufactories the vessels would necessarily be made after one and the same pattern [why ?]; and that my assumption, that the Memshath pottery is at least 100 years older than the Shocoh pottery is no less inconsistent with uniformity of type. I venture to think, however, that persistence of one type is not impossible over a yet longer period than 100 years. The large bowls of Mycenaean form, with a frieze pattern, containing birds, spirals, etc., persisted in Palestine with little or no change from about 1450 B.C. to nearly 1000 B.C. And it seems to me more probable that one manufactory in the hands of one family with hereditary traditions, and using one claybed, would be more likely to produce vessels of a uniform type than would manufactories in four different places, even though the latter should be contemporaneous.

Let me, in conclusion, once more thank Dr. Sellin for his kind criticisms, and express the hope that he will see in this answer a spirit of courtesy equal to that which he has shown to me.

NOTES AND QUERIES.

(1.) *Sacrificial Cakes.*—The feast with which the fast of Ramadan is closed is celebrated by the fellahin in various ways, among others the making and eating of cakes such as is illustrated in the sketch sent herewith, made from a specimen with which I have been presented. The interest of this object, in the first place, lies in its being a direct contravention of the well-known Muslim prohibition of representations of the human form; and, in the second, in its being possibly a survival of well-known types of *dea nutrix* figures. Though the turban on the head shows that the artist wished to represent a male figure, this does not prevent its being reminiscent of such an ancestry.



The cake is made of a heavy and extremely indigestible dough, stuffed with raisins. It is 10 inches long.

R. A. S. Macalister.

(2.) *Stamped jar-handle from Gezer.*—May I venture to suggest that the block on p. 264 of the October *Quarterly Statement* is at the wrong inclination, as is proved by the slant of the old Hebrew characters. If the illustration be revolved 50° "against the clock," the characters are now in the customary angle, and the inscription contains the perfectly intelligible biblical name הדי *Hiddai* (2 Sam. xxiii, 30), which, in 1 Chron. xi, 32, becomes *Hurai* through confusion between ד and ר.

There is no necessity to read the remaining device as the letter ט. We are all familiar with the common Hebrew style of signet, of a round or oval form, divided into two parts by a single or double horizontal line. The ⊖ on the stamp is merely the representation of such a signet. Thus the whole thing resolves itself into the potter's name *Hiddai*, accompanied by the graphic device of a seal.

E. J. Pilcher.

(3.) *The inscribed Objects from Gezer.*—The stamp, discussed by Mr. Pilcher in the preceding paragraph, is also the subject of a careful study by Professor Clermont-Ganneau (*Recueil d'archéologie orientale*, § 14). The latter authority is at first tempted to read the *teth* as an *'ain*, and rearranges the letters *'-d-y-h*, *i.e.*, Adaiah. But the slope of the *d* (or *r*) is so anomalous that he asks whether it should not be a *beth*, thus producing the eminently suitable name *t-b-y-h*, *i.e.* Tobiah. Mr. Macalister, however, informs me that the *b* is impossible, and it must be added that were it meant that the letters should be read in the order suggested, they would probably have faced another direction. In fact, Professor Clermont-Ganneau himself has published a legend which is *boustrophedon*, and the letters are inclined toward the direction in which they are to be read. Mr. Pilcher's view (above) has the great merit of explaining the slope of the *r*, and although his Hiddai is a very plausible reading it is to be noticed that the biblical name is not altogether certain; see *Encyclop. Biblica*, *s.v.*, "Hurai." But his result is to disturb the *h* and to leave it in what appears to be an unnecessarily slanting

position, an objection, however, to which much weight, in this case, cannot reasonably be attached. After all, the fact that the letters are upon a circular stamp must be taken into account. The writer has been guided by symmetry, and if the stamp be regarded as it stands in the block it will be obvious that a *r* (or *d*) at the ordinary angle could not have been placed within the circle. Consequently, although Hiddai may appear a very appropriate name, the reading *h-y-r-t* is still not excluded. Its very strangeness may be an objection—though Gezer is revealing traces of a strange race—or it may be preferable to accept Mr. Macalister's own suggestion that the letters are an abbreviation.

The inscribed weight (*Q.S.*, pp. 226, 320) forms the subject of another interesting note by Professor Clermont-Ganneau. He takes the obscure בים to be a dual: two *pym*, that is, two portions or fractions. This use of the word פֶּה, literally "month," finds an analogy in the Egyptian *ro* (mouth), which, as he reminds us, has a similar use. In an extremely acute discussion he shows that the weight in question is two-thirds of a unit, which is the hundredth of a mina, it is also the half of the Jewish shekel (14 gr. 55). The whole note must be reserved for fuller consideration on a later occasion.

S. A. Cook.

(4.) *Foundation-sacrifice Superstition.*—A wild and gruesome story, of course utterly untrue, is being circulated by gipsies concerning the new Greek building, above referred to, inside the St. Stephen's Gate (see p. 7). I overheard a gipsy-girl relating it to a fellaḥ woman, and I only record it in illustration of the survival of superstitions connected with "foundation-sacrifices" amongst the very lowest class of the population:—

"When the Nassara (Christians) began last year to rebuild the old bath inside the Bab Sitna Miriam, they found that every stone they laid during the day was tumbled down at night. They therefore dug very deep into the earth and found a cave in which, surrounded by golden crosses, lay a 'kitab,' or book, the leaves of

which were glittering with jewels. Failing in their endeavours to approach and seize the treasure they asked the advice of a clever Mughrabi sheikh, who told them that they would not succeed until they had killed twelve people and drenched the place with their blood. Only yesterday a Nasrani came to our sheikh and offered him twenty liras if he would let him have one of my little brothers. Of course, we would not hear of such a thing. We hear that several children have lately disappeared; doubtless, they have been killed by the Nassara and the Jews. An old street-watchman was lately found dead near the place. He must have been killed for the same purpose."

It may be interesting for me to record that when on May 23, 1891, I left my dwelling in order to be present at the laying of the foundation-stone of the L.J.S. Girls' School at Jerusalem, an old domestic, who had heard where I was going, begged and entreated me not to stand between the sun and the foundation-stone, *lest my shadow, falling on the latter, should cause my death before the close of the year.*

Rev. J. E. Hanauer.

5.—*The Zodiac-Tablet.*[1]—May I point out that the "ladder-like object" is probably representative of *Libra*. When Mr. Macalister is able to get to his books, if he will turn to Drummond's *Œdipus Judaicus*, the Plates will afford him some suggestions. Number 1, which is an Egyptian zodiac from Kircher, gives us, in *Libra*, a human figure holding a pair of scales in one hand and a ladder in the other. *Scala* is a ladder or stairway, and it may be fairly asked whether this was not the first meaning of the zodiacal sign. In the Egyptian teaching the good man after death goes the way of the sun, makes his way safely through the Underworld, and then ascends a stairway into the Elysian fields at the place of sun-rising. In Chapter XXII of the *Book of the Dead*, the divinity is made to say: "I am Osiris, the Lord of Restau, the same who is at the head of the Staircase." The "Staircase of the great god" at Abydos is frequently mentioned on the funereal stelae. This *scala* was on the eastern or spring side of the heavens, where the deceased ascended

[1] See, for other communications, pp. 26–29 above.

from the world of the dead; but there was, of course, a corresponding stairway on the western or autumn side, where he had gone down.

The ⊤-like objects of the zodiac-tablet may possibly be crude pictures of the bow and arrow of *Sagittarius*. Drummond's Plate 9, which is from the *Philosophical Transactions* of 1772, shows the bow and arrow in the sign, without the Archer; and Plate 4 (from Kircher again) gives a hand holding an arrow almost at right angles to the arm (and nothing beyond). There are also in these Plates some extra-zodiacal figures which may prove suggestive to Mr. Macalister.

GEORGE ST. CLAIR.

(6.) *The Site of the Acra.*—We veteran Ophelites welcome Sir Charles Watson as a newly-girt defender of the city of David, but when, on going up to Mount Zion, he describes an area of some acres, close to the site of Solomon's Temple, as the position of the Acra of the Maccabees *levelled* by Simon (as saith Josephus), I am thunderstruck. He can never hold the Fort here. In his manifesto, Sir Charles lays down his principles thus (cf. *Quarterly Statement*, 1906, p. 51):—"We have to depend upon the historical statements of the Bible, the Apocrypha, and Josephus . . . . I am strongly of opinion that it is not desirable to reject any statement made by them . . . . . quite impossible to reject the fact that the hill upon which the Acra stood was cut down, and no site for the Acra can be accepted which is incompatible with it (the levelling of the Acra)."

In this first Paper (*Q.S.*, 1906, p. 52) Sir Charles began by describing his Acra (100 to 200 feet south of the temple) as *distinct* from the City of David, placing it *thrice* between the temple and the City of David. It was soon pointed out that the stronghold, the stronghold of Zion, and Zion were, in the Bible (Rev. Ver.) convertible terms, describing one and the same place (*Q.S.*, *id.*, 157, and 1881, p. 94), and that 1 Macc. i, 33 says: "Then builded they the City of David with a great and strong wall, and with mighty towers, and made it a stronghold for them." This obviously means

that the Acra and City of David formed one and the same place. "As it is not desirable to reject any statement" of the Bible and 1 Macc., how can one possibly believe and admit Sir C. Watson's theory that the Acra was *between* the temple and the City of David (itself the Acra). Here was indeed a dilemma. How can a place be *outside* itself so as to be between itself and another place?

In his second Paper, Sir Charles only mentions the City of David to amend his case by now saying (*Q.S.*, 1907, p. 210), "It is definitely stated in 1 Macc. i, 33, that the Acra of the Greeks was *in* (italics mine) the City of David"; (213) "the Acra was certainly in the City of David, and between this city and the temple," and (214) "in the City of David, which the Acra undoubtedly was." "It is not desirable to reject" the statement of 1 Macc., quoted above, identifying (so far as I see) the City of David with the Acra, but here it is thrice insisted on that the Acra (which was the city of David) was *inside* the City of David. Here is a second dilemma, as difficult as the first, for how can a place be *inside* itself?

Sir Charles Watson evidently attaches the highest value to Josephus and his guesses; Ewald and Sir Charles Wilson did the same. Indeed, the latter, in *Q.S.*, 1893, p. 165, actually writes: "the Acra was within the limits of the City of David (1 Macc. i, 33, etc.)," the very verse quoted above. I fully replied on p. 326, pointing out that the words did not (so far as I could see) bear the meaning forced upon them; and, since 1893, no one has cared here to re-introduce the point until Sir C. Watson raised it once more.

In Macc. the expression is literally (Gr. ἐγένετο εἰς), *was turned into* (i.e., *became*, L. and S. Lexicon) the Acra. So in N.T. five times, "the stone which . . . *is become* the head of the corner." In Exod. iv, 3, 4, the rod of Moses *became into* (in Hebrew) a serpent, and then the serpent *became into* a rod. In Ps. cxviii, 22 (Heb.) "the stone is become into, etc." Now, if we had to deal with Exodus as the friends of Josephus deal with 1 Macc., then we should have to translate, "the serpent was in the rod, and then the rod was in the serpent." This, I think, is enough to show that there is a mistake somewhere.

If Sir Charles now resolves to make a stand on his height overlooking the temple, I must sadly leave him to face alone the terrific assault prepared by Sir C. Wilson in the assertion (*Q.S.*, 1893, p. 165) that "it is geologically impossible for the ground south of the Temple to have been higher than that upon which the

temple stood." This, if correct, annihilates at once the above height; but, if experts pronounce it incorrect, then the *shallow* valley (*Q.S.*, 1907, p. 207) opens the way for another. πλατεία has been accepted as *broad* by all writers (I believe) hitherto. It will be very hard, I fancy, to show that in Josephus it means *shallow*. It is just 300 years since the first blow was given to Josephus, when one lively Hebrew scholar drew a bow at a venture and smote him between the joints of the harness, by inserting the new heading to 1 Chron. xi, 4: "He winneth the castle of Zion from the Jebusites by Joab's valour." Josephus distinctly says David took *two* places, the lower city and the citadel (ἄκρα), while the Bible names but one, the castle of Zion. Let me now become (into) an Anti-Josephus and ("Here truth inspire my tale") give my version of the capture of Jerusalem:—The Jebusites had seen the gathering clans passing in their thousands on the way south, and realized at once that their critical day was coming. David was made king. In four, or twenty-four, hours the Philistines would hear of it. Three days was there feasting at Hebron; meanwhile Araunah and another young man, had been slipped from Jebus. David, with his vast host appears before his future capital, the Jebusites shutting themselves up in their stronghold. Then David, instead of an expected surrender, meets only with jeers from the walls: "Except thou take away the blind and the lame, thou shalt not come in hither" (II Sam. v, 6). Israel's new king was greatly exasperated, and at once, or a few hours afterwards, said: "Whosoever getteth up to the gutter and smiteth the Jebusites, etc." . . . (II Sam. v, 8. See Kennicott). Night closed in. His vast host, weighed down with three days' feasting and then the march, was soon fast asleep. David vexed at his failure prayed. It was well past midnight when a fool-hardy Jebusite—that thoughtless Araunah—stole down in the awful stillness to Gihon and entered the water-way (the gutter leading to the vertical shaft to Zion) where subtle Joab, like a lion of Judah, was lying in wait for him. Instantly Araunah was seized, gagged, bound, removed, and guarded by sentinels. As the Bethelite, caught coming out of his city, turned traitor, so Araunah, caught going into Zion, also did the same. A few hours after, the host was roused by loud cheering at the capture of the famous stronghold.

No quarter was given. Joab became commander-in-chief. Araunah, however, was not slain, "because (as Josephus twice

asserts) of the good will he bare to the Hebrews and a particular benignity and affection which he had to the king himself." *Si sic omnia dexisset.*

Rev. W. F. Birch.

[Having read Mr. Birch's paper, I think that he somewhat strains his points as to the fortress being "within" or "without" the City of David. Windsor Castle may be described as in Windsor, for it forms one side of the High Street; but it may also be correctly described as "occupying a hill between the town of Windsor and the Home Park." Moreover, we say that "the King has gone to Windsor," meaning the Castle. The Tower of London is, or rather was when built, a stronghold of London, a part of London, yet actually outside the City.

Because the Maccabean writer does not mention a detail which Josephus does give, it need not follow that they are at variance. Josephus was an educated native of Jerusalem, mixing with men who knew and valued its traditions: and the broad fact remains that, at *some* time, the ground under discussion *was* levelled, and remains so.—J.D.C.]

THE

PALESTINE EXPLORATION FUND.

NOTICE.—The ANNUAL GENERAL MEETING will be held on the afternoon of Wednesday, the 17th of June, when the Chair will be taken by the Very Rev. the Dean of Westminster. Tickets should be applied for during the first week in June.

NOTES AND NEWS.

ON February 16th, His Excellency the Governor of Jerusalem, attended by the Director of Public Instruction, the Lieut.-Governor of Jaffa and other important Government officials, honoured the Palestine Exploration Fund by paying a visit to the Society's Excavations at Gezer. His Excellency expressed much appreciation of the work, accepting photographs of the Excavations as he returned to his carriage. Mr. Macalister explained the nature of the researches and was much gratified by this mark of interest in his work on the part of the representative of the Imperial Government.

We have received from the learned Rev. Père Vincent, O.P. (too late, unfortunately, for the present issue), an article on our excavations at Gezer, and particularly on the great tunnel or rock-passage, which is the chief subject of Mr. Macalister's Report. The Reverend Father, one of the most accomplished of Palestinian archaeologists, visited this great work during the winter, and was greatly impressed with its importance. Subsequent consideration and a second visit have still further convinced him that, to use his own words, "this new discovery surpasses in interest—even religious interest—the greater part of those hitherto made in Palestine." The article will appear in our next issue.

Apart from the account of the tunnel, Mr. Macalister describes in the present Report some miscellaneous objects of great interest. A mould for casting ornaments illustrates the local taste in jewellery about the eleventh century B.C. A fragment of an Egyptian vase, bearing the name of Ramses III, was found near the grotesque figure illustrated in the last Report, and thus gives some indication of the date. Still more interesting was a large jar found in the corner of a room; it was of the kind used in the foundations of buildings, and contained small models of human figures: it was evidently, as Mr. Macalister suggests, a model of a foundation sacrifice. This steady accumulation of evidence, illustrating the religion and culture of Gezer, is highly satisfactory, and it cannot be too emphatically impressed upon our readers that the wealth of this ancient site makes it ever more necessary that it should be excavated as thoroughly as time and funds permit. The well-known Leipzig Professor, Rudolf Kittel, has recently published some valuable studies on Hebrew archaeology and religion—the work undertaken by the Palestine Exploration Fund at Gezer forms one of the chief sources upon which the writer has drawn. A study of the religion of Ancient Palestine in the second millennium B.C. is in course of preparation by another writer—again the discoveries at Gezer have afforded the most valuable evidence. Quarter by quarter the results have been placed in the hands of readers, so that at present seventeen reports are accessible, containing about 170 illustrations, plans, etc.; this is a record which it would not be easy to beat. Valuable information is thus published at once, and finds its way into contemporary works of Biblical research. Similarly, the more complete character of the excavations at Gezer has thrown much light upon other sites which have been less thoroughly examined. The advantage has, therefore, been twofold: Palestinian studies have benefited and the labours of Biblical scholars have been furthered. As was pointed out in the last *Quarterly Statement*, large areas in Gezer still remain untouched, and only by employing more labour can Mr. Macalister go as near the ideal as possible before the Permit lapses. The Committee therefore appeal very earnestly to all subscribers and their friends to make special efforts to assist them in making the excavation of Gezer as complete as possible before the expiration of the extension of time granted by the Sultan. *Special donations are invited.*

A "Palestine Exhibition" was held at Plymouth during the first fortnight in February under the auspices of the Bishops of Exeter and Truro, and under the management of a Committee which included a large number of the clergy and ministers of the three towns. At the special request of the Committee, this Society contributed an exhibit of their maps, with casts of the Temple, the Siloam inscription, and the remarkable Hittite inscriptions; also several fine enlarged photographs of the excavations and discoveries at Gezer. Thanks to the exertions of the Revs. G. B. Berry and H. D. Nicholson, who attended personally to explain the objects exhibited, considerable interest in the work of the Fund was aroused among the many thousands who visited the exhibition.

A sample of water from the Dead Sea, taken and sent home by Dr. Masterman, from a spot in which he observed fishes to exist (see below, p. 160), has recently been analysed by Mr. Purvis, of the Cambridge University Chemical Laboratory, who found it to contain no less than 33·3 per cent. of solids, the water being absolutely clear. This percentage is much higher than that observed in analyses made many years ago, which gave respectively 24·7 and 27·8.

Flint Implements.—Mr. Herbert E. Clark, of Jerusalem, has forwarded some account, accompanied by excellent photographs, of an important collection, formed by himself, of flint implements from the plain of Rephaim. He believes the greater number of them to be "very early agricultural implements." They certainly form a fine series and, with the exception of an example from 'Ain Zarah, have all been found by himself in the same locality during the last twenty-eight years. In addition to the "agricultural" tools, are many "celts" of the ordinary type, scrapers, knives, and what were probably hammers. All were found on the surface of the alluvial soil of the plain; and Mr. Clark remarks on the singular fact, that in all his searches in this plain he has found no flint *weapons*, which he did find on the site of the Philistine camp at Ramallah in the neighbourhood. These latter were of white flint and finer workmanship, while those of the plain are of dark, or variegated, and harder flint, and of ruder workmanship. The collection shows how much may be done, with careful observation and perseverance, by one residing in the country. It includes several iron

objects such as masons' tools, shears, &c., from the great "find" last year at *Bittîr*, fragments of bronze spears and daggers, strings of beads and some thirty pieces of pottery found at "*Samieh*," or "*Samey*," last year. They all help to illustrate the habits of early occupants of Palestine. It may be remembered by our readers that many fine flint implements were found at Lachish, and the Fund possesses a considerable number of them in the Museum. Mr. Clark's private collection remains in Jerusalem, where travellers interested in the subject may, no doubt, obtain permission to see it. Photographs of the flints arranged by Mr. Clark can be seen at 38, Conduit Street.

The Committee received in January from Mrs. Ross Scott a useful contribution to the Library of various books on Palestine. Such gifts are much appreciated. They have also received from Mr. Phené Spiers a gift of "Roberts's Views in the Holy Land," a work which forms a valuable record of the condition of many important ancient buildings in the first half of last century.

In the *Home Words for Jerusalem* Dr. Wheeler gives the following account of the work for the quarter ending 31st December, with "a foreword on malaria":—

"Although malarial fever still stands foremost as the cause of illness in the bulk of our patients, we have had a good number of other cases of interest both medical and surgical. Over 600 ounces of quinine were used during the year. Facts are accumulating fast to prove the baneful effects that malaria has on the general *morale* of any race that is subject to its continuous influence. It is certainly a neglected factor in the history of many nations, and it is now being shown that malaria played no small part in bringing about a general decay in races like the ancient Greeks and Romans. It has been noticed that a change took place in the character of the Greeks about the fourth century B.C. Home life was preferred to city life. Patriotism decayed, and the hearts of the people ceased to be stirred by lofty aspirations. Peevishness and discontent became marked characteristics of the age. Much of their intellectual strength and manly vigour seem to have been lost. Malaria had no doubt aided in bringing these conditions about. It has been proved that malaria existed in those earlier days in Greece,

almost as much as it does now. There was no quinine to combat the disease in the earlier period of the nation, and, of course, mosquitoes were not recognised as the vehicle by which malaria could be carried from one person to another.

"Dr. R. Ross says: 'Modern Greece is intensely malarious. In the Copaic Plain examined by me last year (1906) I estimated that quite half the children were infected, even in June, before the annual malarial season had commenced. The Grecian Anti-malaria League has collected excellent statistics on the subject. It has been estimated that in the unhealthy year 1905, out of a total population of only about 2½ millions of people, nearly a million people were infected with malaria, and nearly 6,000 died. The Greek army is as heavily infected as was the Indian army until the last few years.'

"Of course, it is not necessary to assume that an event actually did occur only because it may have occurred, but *a priori* it seems likely that malaria was introduced into Greece about the time of the Greek invasions of Asia and Africa, by slaves or sick soldiers returning to their houses. 'It seems probable that malaria would have reached its present degree of prevalence in Greece very shortly after its introduction, and must have been a cause of the rapid decline of the country after the great age, and not the result of that event.' If this is the case, then every effort should be made to stamp out malaria from Jerusalem and Palestine.

"There was the usual number of out-patients and prescriptions. The statistics for the quarter are:—In patients, 498; out-patients, 5,287; home visits, 700; dressings, 6,304; prescriptions, 9,420; recipes, 18,840."

We learn from *Home Words* that the early rains commenced last autumn in due time and fell abundantly, over five inches having been registered before the end of November. They were followed by an interval of fine weather so that the peasants were able to begin ploughing.

The Committee have to deplore the loss by death of another of their number. Colonel James R. Bramble, of Weston-super-Mare, died on the 3rd of February last. He was a man of wide interests, his life was full of activity for public objects in his own neighbourhood, and he had long been keenly interested in the work of this Society.

We publish in the current number the first instalment of an account of an interesting astrological treatise which has been kindly communicated by Miss Gladys Dickson, daughter of H.B.M. late Consul for Jerusalem, Mr. John Dickson. It will be remembered that Miss Dickson contributed a valuable description of the tomb of Nicanor of Alexandria, containing a very noteworthy inscription (*Quarterly Statement*, 1903, pp. 326–332). She has also furnished interesting notes on Palestinian Folk-lore (*Quarterly Statement*, 1906, pp. 67 *sqq.*, 130 *sqq.*; 1907, pp. 148 *sqq.*), a further instalment of which we hope to publish in the next number.

Prof. C. S. Myers writes:—"It is perhaps worth noting that the number of pellets on the Arab rosary is ninety-nine, not a hundred and one as stated by Mr. Macalister on page 37 of the January number of the *Quarterly Statement*. At all events, this is the case as regards the rosaries used in Egypt. The source of Mr. Macalister's (probable) mistake can no doubt be explained by his informant's use of the phrase 'a hundred *less* one,' which was confused with the phrase 'a hundred *plus* one.'"

We are indebted to Mr. Joseph Offord for the following interesting communication:—

"M. Pognon, the French Consul in Mesopotamia, has notified to the Académie des Inscriptions an important discovery of four fragments of an extremely ancient Aramaic inscription of the eighth century B.C. referring to Ben-Hadad, son of Hazael, King of Syria, who is referred to in Jeremiah xlix, 27, Amos i, 4, and 2 Kings xiii. The new text is a record of victory of a certain Syrian king Zaker, who defeated Ben-Hadad and a number of allied chiefs. The battle appears to have taken place near Hazrak (cp. Hadrach, Zechariah ix, 1). No mention of a Jewish king occurs, but this defeat of Ben-Hadad by Zaker helps to explain the facility with which 'Jehoash took again out of the hand of Ben-Hadad the cities his father, Hazael, had captured from Jehoahaz,' and thus recovered the cities of Israel. The deity to whom Ben-Hadad (Bar-Hadad in the new inscription) attributes his success is Baal-Shamem (Baal of the Heavens)."

The attention of those interested in the subject of the Exodus of the Israelites is called to a new map of the "Desert of the

Wanderings," from Mount Hor on the east to the Suez Canal on the west, and from Mount Sinai in the south to Beersheba in the north, which has been compiled by the War Office, and is based principally upon the sketch surveys of the Palestine Exploration Fund (scale 4 miles to the inch). In eight sheets, price 1*s.* 6*d.* per sheet.

Judas Maccabæus, by Colonel C. R. Conder, R.E. This interesting little book was among those of which the whole edition was destroyed in the fire at Messrs. Bain's warehouse last year. It is now reprinted and can again be supplied (4*s.* 6*d.*) on application to the Secretary.

"Golgotha and the Holy Sepulchre," the last work of the late Major-General Sir Charles Wilson, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D., etc., is now ready. In this work the late Chairman of the Executive Committee of the Palestine Exploration Fund has brought together for the first time all the evidence which the most exhaustive research enabled him to collect bearing on the subject of these Holy Sites; and probably no man living had at once so intimate a knowledge of all investigations in the modern Jerusalem and so complete an acquaintance with what has been written about the Sites from the time of Constantine onwards. The price of the work (demy 8vo) is 6*s.*, by post 6*s.* 4*d.*, and cheques should be made payable to the order of George Armstrong, Acting Secretary to the Fund, and crossed "Coutts & Co."

The first edition of Mr. Macalister's work, "Bible Sidelights from the Mounds of Gezer," was quickly sold out, and a second edition is now on sale. It has been written to show how the results of digging in Palestine should appeal not only to the scientific anthropologist or archaeologist, but also to the Bible student who has no special interest in these sciences. The book contains a brief synopsis of the work of the Fund from its foundation to the present and a description of the site of Gezer, and its history. Price 5*s.* 4*d.*, post free.

The *Painted Tombs of Marissa*, recently published by the Fund, is now recognized as a very important contribution to the history and archaeology of Palestine in the last centuries before our era. It may be mentioned that the leaflet containing the result of the investigations by Mr. Macalister at the Tombs has been published,

and can be had on application to the Acting Secretary by those who possess the volume.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers. Those which are sent by Mr. Macalister, illustrating the excavations at Gezer and which are not reproduced in his quarterly reports, have been held over for the final memoir.

The attention of subscribers and others is called to *A Table of the Christian and Mohammedan Eras*, from July 15th, A.D. 622, the date of the Hejira, to A.D. 1900; price by post, 7*d*. Also to the *Meteorological Observations at Jerusalem*, with tables and diagrams by the late Mr. James Glaisher, F.R.S. Tourists and all desirous of accurate information about the climate of Jerusalem should not fail to send for a copy, price 2*s*. 6*d*.

The attention of subscribers is also called to a work by Sir Charles Warren, entitled "The Ancient Cubit and our Weights and Measures." He brings evidence to show that all weights and measures (except those of the metrical system) are derived from one source—the double-cubit cubed of Babylonia.

The Museum and Library of the Palestine Exploration Fund at Jerusalem are in the Bishop's Buildings, near the Tombs of the Kings, where the use of a room has been kindly permitted by the Rev. Dr. Blyth, Bishop in Jerusalem and the East. The Museum is open daily, except Sundays, and the Honorary Secretary, Dr. D'Erf Wheeler, will give all information necessary.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s*.

The income of the Society from December 20th, 1907, to March 20th, 1908, was—from Annual Subscriptions and Donations, including Local Societies, £604 2*s*. 6*d*.; from sales of publications, &c., £71 10*s*. 7*d*.; making in all, £675 13*s*. 1*d*. The expenditure

during the same period was £552 9*s.* 5*d.* On March 20th the balance in the bank was £471 16*s.* 9*d.*

Subscribers who have not yet paid will greatly facilitate the Committee's efforts by sending their subscriptions in early, and thus save the expense of sending out reminders, as the outgoings on the excavations at Gezer will be a heavy drain on the funds. Special donations during the quarter have been received from—

Rev. J. Hewitson ...	...	...	£2 2 0
Harold C. Wilson, Esq.	...	...	£20 0 0

Subscribers to the Fund are reminded that, whilst the receipt of every subscription and contribution is promptly acknowledged by the Acting Secretary, they are now published annually, and not quarterly. A complete List of Subscribers and Subscriptions for 1907 is given in the Annual Report published with the present number.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries. Prof. Karl Marti has kindly consented to act at Berne, Switzerland.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Miss Mary A. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

Subscribers and others may be reminded that the new Raised Map of Palestine, constructed from the Surveys of the Palestine Exploration Fund by the Acting Secretary, is ready. It is on the scale of 6¼ miles to the inch and measures 3 ft. × 2 ft. It has already been used with great success by Professors of Old Testament History, and by teachers in Sunday Schools, and may be especially recommended for large classes of students. On view at the office of the Fund; further particulars may be had on application.

In order to make up complete sets of the *Quarterly Statement*, the Committee will be very glad to receive any back numbers which subscribers do not wish to preserve.

A complete set of the *Quarterly Statements*, 1869-1905, containing the early letters, with an Index, 1869-1892, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Acting Secretary, 38, Conduit Street, W.

Subscribers of one guinea and upwards will please note that they can still obtain a set, consisting of the "Survey of Eastern Palestine" (Colonel Conder); "Archæological Researches in Palestine," in two volumes (Clermont-Ganneau); "Flora and Fauna of Sinai, Petra, and the Wady 'Arabah" (Hart), for £7 7*s*., but the price has been increased to the public to £9 9*s*. The price of single volumes to the public has also been increased. Applications should be made to the Acting Secretary.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 38, Conduit Street, W.

The Museum at the office of the Fund, 38, Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

Photographs of the late Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area and Justinian's Church, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. The four photographs, with an explanation by Dr. Schick, can be purchased by applying to the Acting Secretary, 38, Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced prices.

The Committee acknowledge with thanks the following :—

"Échos d'Orient," January, 1908.

"Palaestina," December, 1907.

"Al-Mashrik: Revue Catholique Orientale Mensuelle."

"Bulletin de l'Academie Impériale des Sciences de St. Pétersbourg," 1908, No. 3 (with "Liste Sinaïte des pères du premier concile œcuménique de Nicée").

"La Creation: Les Migrations au temps Géologiques, les premières dates de l'histoire et les premières races humaines suivant la Bible." Par le Vicomte François de Salignac Fénelon.

"Sixth Annual Report of the American School for Oriental Study and Research in Palestine, 1906–7. (Prof. D. G. Lyon, Director.)

"Recent Excavations in Palestine." By Prof. D. G. Lyon. From the "Harvard Theological Review," January, 1908.

"Beiträge zur Kenntuiss des Karmels." By Dr. E. Graf von Mülinen.

"Coutumes des Arabes au Pays de Moab." By le Père Antonin Janssen, des frères Precheurs.

&c., &c.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

For list of authorized lecturers and their subjects, *see* end of the Journal, or write to the Secretary.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of _____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge to my Executors.

*Signature*_____

Witnesses _____

_____

_____

Note.—*Three Witnesses are necessary in the United States of America. Two suffice in Great Britain.*

MEMOIR

OF

THE REV. PROFESSOR T. F. WRIGHT, PH.D.

To all those who were personally acquainted with the late Dr. Wright, and to many who only knew him by his ardent work for the Palestine Exploration Fund, a brief account of his active, purposeful life cannot fail to be interesting.

The child of Edmund and Sarah Augusta Wright, he was born on August 3rd, 1845, at Dorchester, Mass., U.S.A. He entered Harvard in 1862, and, after serving in the war, became a graduate of Harvard in the class of 1866. He was graduated from the New Church Theological School in 1868, and was ordained to the Ministry in the following year. He held but two pastorates during his life: the first at Bridgwater, Mass., where he remained for twenty-one years; the second at Cambridge, Mass., where he continued for the rest of his life.

During the Great Civil War (1864–65) Dr. Wright served in the Union Army and was First Lieutenant in the 108th regiment of Coloured Infantry.

In 1868 he married his first wife, Harriet S. Chapman, of Boston, who died nine years later. He married secondly, Pamelia Keith, of Bridgwater, who survives him.

Dr. Wright was a man of many activities. He was prominent among workers for the welfare of his own city, President of the East End Christian Union, Vice-President of the Associated Charities, and a member of the Ministers' Club of Boston and Cambridge; he was also active in other works for good. In his own ministry he was held in high esteem. He was head of the Theological School, for many years editor of the *New Church Review*, the author of several theological works, and a frequent contributor to magazines and newspapers. He was also a member of the Archaeological Institute of America, of the American Oriental Society, and of the Society of Biblical Literature and Exegesis.

From a Photograph *by Marceau, Boston.*

PROFESSOR THE REV. THEODORE F. WRIGHT, PH.D.

In 1884, he was called to the Professorship of Homiletics and Pastoral Care in the Theological School, and in 1889 settled in Cambridge and became Dean of the School. The Degree of Ph.D. was conferred on him by his University in 1891.

Deeply interested in all that concerned Biblical research, Dr. Wright visited Palestine in 1887, where he spent two months in Jerusalem, and made a tour of the country. In 1890 he became Hon. Local Secretary to this Society, and Lecturer in 1892. In 1897 he was appointed "Hon. General Secretary" and Lecturer, for U.S.A., and throughout his connection with the Palestine Exploration Fund he gave himself without reserve to promote its interests; giving energy, time and pains to the work—and with deserved success. For example, it may be mentioned that when, in 1893, the Fund Exhibited at Chicago a complete collection of its maps and publications, Dr. Wright attended personally for some four months, giving explanations and answering questions on the subject of our work; and again, in 1904, at the great St. Louis Exhibition, although unable to be present for so long a time, he was at great pains to explain the work and objects of the Fund.

In 1892 and 1897 Dr. Wright visited London and the offices of the Fund, and it will be within the recollection of many readers that in 1903 he attended the Annual General Meeting, at which by invitation, he spoke—and spoke admirably—with enthusiasm and with lucidity. On this occasion he, for the first time, met the late Sir Charles Wilson and the members of the Committee, and it is not too much to say that he carried away the high regard of all those he met.

In October of last year he set out, accompanied by Mrs. Wright, with the intention of visiting Egypt and then, again, the Holy Land. But before reaching Alexandria his strength failed and he desired to return home. He died on November 13th, shortly after leaving Alexandria, homeward bound.

J. D. C.

SEVENTEENTH QUARTERLY REPORT ON THE EXCAVATION OF GEZER.

Fourth of the Second Series.

11 *November*, 1907—10 *February*, 1908.

By R. A. Stewart Macalister, M.A., F.S.A.

The work of the past quarter has been much interrupted by violent storms. It has consisted in the finishing of the examination of the great tunnel, the discovery and partial clearance of which was reported in the last *Quarterly Statement*; and in the completion of the western trench northward, so that it cuts across the whole of the area of the ancient city (see the plan prefixed to the last report). Nothing of special importance or interest has come to light.

As the postscript appended to the previous report informed the Society, the tunnel, that appeared at first to be an ancient entrance to the city, was found to end in a cave in which rose a great spring of water. The first feeling was one of natural disappointment at so prosaic a conclusion, and under its influence the postscript in question was penned. But on reviewing the matter more calmly, one cannot help wondering whether such a result is not perhaps as satisfactory as any other.

The tunnel was found to descend by eighty steps; for about two-thirds of its course it maintained with tolerable uniformity the cross-dimensions of its entrance—that is to say 23 feet high and 12 feet 10 inches across. After the second third of its course it entered a much harder stratum of rock, the quarrying of which must have been a matter of considerable difficulty: the dimensions from this point onward contract considerably. The edge of the lowest step was an inch or two above the level of the water, which was 94 feet 6 inches below the surface of the rock or about 130 feet below the present surface of the ground.

The spring was completely choked with soft mud of an unknown depth—a long crowbar failed to sound the bottom. To clear it would have been a difficult, expensive and (from the archaeological point of view) profitless task.

The slope of the roof is maintained for some distance beyond the end of the staircase—indeed, until it comes so close to the surface of the watery mud at the bottom that it is necessary to stoop considerably to pass underneath. It then rises again, and the excavation terminates in a long narrow chamber, measuring at the water-level 99 feet by 27 feet at the widest point.

This chamber was full of earth, and I commenced to clear it out—a long and monotonous task, as of course every basket-load had to be carried up by chains of boys and girls to the entrance of the staircase. Six cranes were erected at the top, and kept hard at work all day. The earth being wet, the baskets were of course much heavier than a basketful of soil usually is; and incidentally it must be mentioned that the wet earth rotted out the baskets in a day or two, so that new ones had to be constantly provided. This indeed became a serious item of expenditure. And as in addition to the hard work involved, there were no antiquities, and consequently no *bakhshish*, my readers will not wonder that I had some little apprehension lest there should be a strike of the labourers.

There were further causes for rather more serious apprehensions. In a rain-storm that took place in the early part of the winter the side of the trench, at the bottom of which the tunnel opened, developed a very ugly crack; while the roof of the cavern at the bottom was so badly flawed, and so rotten, that I was in constant dread of an unlucky concussion bringing down large blocks from it and causing serious mischief to the labourers employed underneath. It soon became clear that to remove all the earth from the cave would be an endless task, and would consume valuable time to no purpose; so I decided merely to cut trenches by the sides, and one through the middle, to determine (*a*) whether the cave was natural or artificial; (*b*) whether it was a single chamber or part of a more complex system; and (*c*) whether there was any entrance or exit other than the great staircase.

(*a*) The first question was not so easily settled as might be supposed, because it was extremely difficult to find any part of the cave in which the original sides remained *in situ*. All around, blocks had become detached and fallen forward, the result no doubt of

earthquakes; some of the fractures looked so fresh that they might well have been caused by the earthquake we had here about four years ago. But all the indications were against its being artificial; and I left the cave satisfied that it was a large natural hollow in the rock, which here is fissured by very wide strata making an angle of about 9° with the horizontal.

(*b*, *c*) The other two questions can be answered together with a simple negative. No doorway or opening whatever was found giving access to any other chamber or passage.

Watery mud was found at every place inside the chamber where the trenches through the earth were made of sufficient depth, so that the spring rises through the whole cave.

The presence of this tunnel is from many points of view not only an interesting but a most remarkable phenomenon. Many questions seem to call for an answer in connection with it; a few of them may here be indicated.

The first question naturally is, why was this method of approach to the water adopted, rather than the sinking of a vertical well shaft by which the water could be drawn with ropes? This question is not easy to answer, though perhaps it may be found to be involved with the solution of the second, which will be considered in a moment. The labour of making the tunnel was evidently much greater than that of cutting a vertical shaft would have been: the passage is about two-thirds as long again as such a shaft, and instead of the rough work that would have been sufficient in a shaft (down which no one could descend), it had to be made carefully with steps. Moreover, when finished, the labour of carrying water from the bottom to the top was evidently much more serious than would have been involved in drawing it up with buckets and ropes. Nor could the tunnel serve a greater number of water-drawers at any one time than could a well-shaft: indeed, even from that point of view, it was probably less practical. If the ancient Canaanite women were anything like their excitable modern descendants, who live in a perpetual atmosphere of nerve-tearing quarrels, the narrow bottom step above the deep spring must truly have been rather too small on many occasions! Under the happiest and quietest circumstances, and with the least mutual interference, not more than six persons at the outside could comfortably stand upon it and fill water pitchers. And when the journey to the surface is remembered, and we picture the women toiling upwards, getting in one another's

way, no doubt often slipping and falling—especially after a lapse of time, when some of the steps had become so broken by foot-wear that only a small section of them was not positively dangerous—it is easy to imagine that the tunnel must have given cause for a considerable amount of social unpleasantness, such as a vertical shaft, all round of which the water-drawers could stand, would have avoided. One reason can be suggested why, when the spring was discovered, a passage-way was made to it rather than a shaft—namely, that it was required to make the water more easily accessible from a palace, or some similar important building. We have yet to excavate to the east of the tunnel, so cannot yet say finally whether or not such a building existed in the neighbourhood of its entrance. The only large residential building found so far, on the Western Hill, would be more conveniently situated to a vertical shaft breaking through the roof of the cave.

But this leads to the second question: How did the Gezerites know that there was such a cave? The only possible indication would be an overflow trickle of water coming out somewhere between two strata in the rock. To certify that there never has been such an outflow would be impossible: but there is assuredly no such outflow now. Another essential would be a tunnel, at least large enough for a boy to creep through, whereby the source of the water could be exactly fixed. Not a trace of such a tunnel is to be found, either from within the cave or from any point in the hill slope outside.

In short, the probability is that there was no external indication of the existence of this source of water, which could enable its position to be fixed with accuracy. It is surely unnecessary to remind the reader that the overflow water from such a spring may escape to the open air miles away from the point from which it starts. If this be so, we are reduced to the conclusion—which seems to me the most probable—that the discovery of the spring was a matter of pure chance.

This brings us back the original question in a rather different form. Did the engineers commence their work with the purpose of finding water, or had they some other end in view, which the accidental discovery of the spring frustrated? The latter is a chance that can easily be paralleled; I believe, for example, that the work of the Simplon Tunnel was very seriously hindered by the discovery of a powerful spring in the heart of the rock. And my

own preference, after weighing the arguments and indications, inclines to this theory. I cannot but think that well-sinkers searching for water would have followed the more orthodox course of making a vertical shaft, for every reason of convenience and economy. But if the intention had been to make a passage going somewhere, we are provided with an explanation of the form which the work took, and to some extent of its grandiose dimensions. If (to adopt the most probable hypothesis) the intention had been to make an exit from the city, which could be used in time of siege, it would evidently be desirable to have as much light as possible to illuminate the stairway down which a panic-stricken multitude might some day rush headlong; on this account the entrance, and the first two-thirds of the passage, were made as spacious as possible.

When the spring was found it would be recognized that here was a resource in time of siege almost as useful as the "emergency exit" originally planned; and the initial scheme was abandoned—unless indeed another attempt was made to carry it out in some part of the mound not yet excavated.

We now, I think, are in a position to give a plausible explanation of the condition of the upper part of the staircase. It will be remembered that the steps had here been completely destroyed—indeed, I was obliged to have steps built to enable the labourers employed in carrying baskets to go up and down. While I was still under the impression that I probably had to deal with a tunnel leading from the city, I suggested (in the previous report) that these steps had been broken by the defenders in order to trap a body of the enemy who might have discovered the lower exit. When the tunnel terminated in a spring, of course this theory had to be abandoned. But another, of a similar nature, takes its place. An invader—say one of the earlier Pharaohs who have recorded their capture of Gezer, or perhaps even someone of whom we have no literary evidence—successful after a long siege, might well be supposed, in his exasperation, to destroy access to the spring which had enabled the defenders to hold out so obstinately. The steps below having already become worn and dangerous, the citizens of Gezer might not think it worth while repairing the damage; so from then onwards the tunnel would be abandoned and gradually become filled up.

Nothing was found to upset the chronological theories I have

already stated—that the tunnel was first excavated not later than 2000 B.C., and abandoned somewhere between 1400 and 1200 B.C.

There remains a question yet more difficult than either of the preceding. Under what influences and circumstances was this great work undertaken? We would not be surprised to find an excavation of this magnitude in the metropolis of a settled civilization, but in a country town in Palestine it is astonishing. The contemporary houses and objects do not indicate a degree of culture compatible with the conception and execution of so great a work: and if the disordered and disorganized state of society mirrored in the Tell el-Amarna tablets be a fair indication of the condition of the country five or six hundred years earlier—as there is every reason to suppose—it is difficult to imagine circumstances sufficiently peaceful to be favourable for the carrying out of such an undertaking. On the other hand, had it been excavated under the influence of one of the Egyptian or Babylonian kings, we might have expected that he would have yielded to that irresistible temptation of writing his names, which constantly beset those self-centered persons. I need hardly say that the most careful search was made for inscriptions, but not a trace of any was to be detected.

One *possible* argument for a Babylonian influence lies in the fact, important in any case, that at the bottom of the staircase were found two small shapeless lumps of iron. Père Vincent has reminded me that the use of iron in Babylon goes back to the time of Gudea. This is, in any case, the oldest evidence of the use of iron yet found in Palestine; but that the fragments had to do with the *formation* of the cave is in the last degree unlikely: they no doubt fell in after its abandonment, with other waste objects. I have already mentioned that the sides of the staircase, wherever the condition of the rock makes the preservation of tool marks possible, show evidence of the use of *flint* chisels by the quarrymen.

The niches that are cut here and there in the walls, mentioned in the last report, may possibly be receptacles for *ex voto* offerings to the spirit of the spring.

The total horizontal length of the excavation, from the extreme west end of the staircase to the extreme east end of the cave, is 219 feet. Plans and sections have been prepared and deposited in the Office of the Fund: they are necessarily too large for the page of the *Quarterly Statement*, but will be published in the final Memoir.

In the meanwhile I present two photographs of the staircase, the one looking down from above, the other looking up from below.

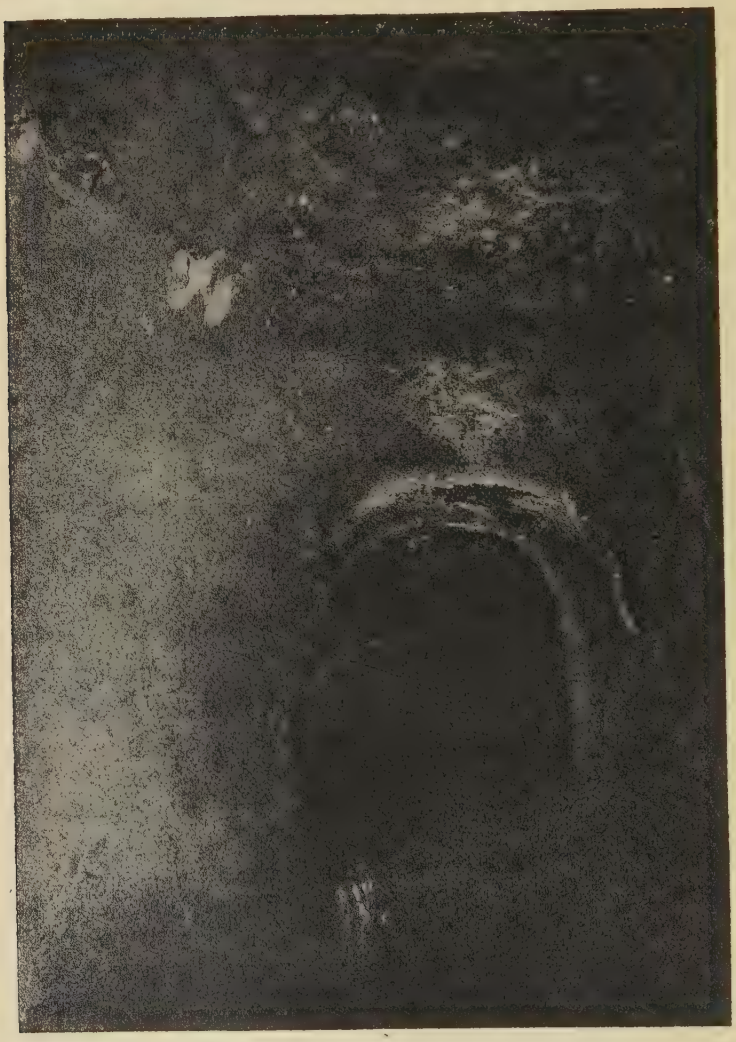


FIG. 1.—The Great Water Passage, facing downwards.

They are the most successful of several attempts that have been made to secure a satisfactory picture of this staircase, which is an

extremely difficult subject for the camera. Flash-light is necessary in any case, and the exposure has to be made late in the evening,

FIG. 2.—The Great Water Passage, facing upwards.

as otherwise the middle of the picture will be spoilt by halation. On the other hand, the length of the staircase is so great that the

light of the magnesium will not carry to the end, and it requires to be helped by a certain amount of daylight; otherwise the upper part will be hopelessly obscure.

The photograph that accompanied the previous report was not intended by me for publication: it was forwarded to illustrate a letter on the subject written to the Committee shortly after the first discovery of the excavation. It should have been accompanied by a note explaining that the appearance of a double staircase is misleading: the upper flight of steps, to the left of the picture, being simply a temporary convenience designed to prevent the boys of different gangs from getting in each others' way. These are formed in the earth with which the tunnel was completely filled, and of course were afterwards removed. The accompanying photograph (Fig. 2) shows the final appearance of the staircase. The perspective of the picture tends to foreshorten the flight of stairs: this will be understood better when I mention that the man who is standing on one of the steps is rather less than half-way up to the top. The other photograph (Fig. 1), looking downward, well shows the loftiness of the tunnel, the texture of the rock, and, especially, the arch mentioned in the previous report, one-third of the length down from the entrance.

The interior of the cave, at the bottom, I tried several times to photograph, but failed. The air inside the chamber is warm and very damp, and a thick deposit of moisture condenses very rapidly on the lenses of the camera, making it impossible for a satisfactory image to become imprinted on the plate. I should have tried to improve upon the photographs of the staircase, which do not altogether satisfy me, but I shall now have to rest contented with what I have. On the 20th of January last a great storm of wind and heavy rain passed over Southern Palestine, and the cracked side of the trench, above referred to, collapsed, precipitating many tons of earth down the tunnel, and completely covering the steps to a depth of several feet. To clear this out again would demand far more time and money than I have at my disposal.

There remains one point in connexion with the tunnel, which is of extreme interest. Although this excavation was as complete a surprise to the fellahin as it was to me, and although the only idea they had about it was, "Perhaps people made it long ago,"[1] yet it

[1] A literal translation of the pronouncement of the most intelligent of all my workmen!

may be that a dim recollection of it remained in what may be called the sub-conscious folk-memory: a psychological phenomenon probably as real in the community as in the individual. The recollection I refer to has taken the form of the strange legends of Noah's flood, which Prof. Clermont-Ganneau long ago recovered from the inhabitants of Abû Shûsheh. These legends I was at one time inclined to connect with 'Ain Yerdeh, at the foot of the mound; but after the tunnel was discovered I began to wonder vaguely whether this water-passage may not have been the source of the legends in question.

The same idea occurred independently and in a yet more definite form to my friend Père Vincent, to whom I have never yet applied in vain for illumination when archaeologically perplexed. He kindly permits me to cite the following extracts from a letter written to me, dated 18th December, 1907. The original is in French, but I give it here in English :—

> Your discovery has recalled to my memory the curious cycle of legends relative to underground water, and to the Flood, in the region of Gezer; and I happen to remember some remarkable details. In the spring of 1900, if I recollect aright, we were one day examining the great cistern (called "of St. Helena") at Ramleh. A fellah of the neighbourhood, when questioned as to the source of the water, the origin of the cistern, etc., related to us a very long story in which the King of the "Fenish" was involved with Noah, with underground passages, and with a spring at Gezer. Formerly the cistern was always full; but now the water has lost its way between Gezer and Ramleh, and even the "tannûr" or baking-oven at Gezer, where the deluge had its rise, is closed up. . . . Obviously these stories, as histories, are absurd; but can it be that they have some very remote connexion with the underground spring and the great tunnel? And once embarked on that route, I end in asking myself by what threads, fine and mysterious, and no doubt tangled, the *tannûr* of the Flood at Abû Shûsheh may be bound to the very ancient equivalents of the *ṣinnôr* which you have just found. The Canaanite *ṣinnôr* of Jerusalem[1] is not so easy to explain etymologically in Hebrew, and you remember what trouble it has cost the old translators and the exegetes of all time.

It would almost be an impertinence for me to add a comment to this most elegant identification; but I cannot refrain from strongly emphasizing one of its most far-reaching consequences. I have always thought that writers on folklore assume quite too readily as a commonplace that the recollection of *historical* (as opposed to

[1] [The "watercourse" of 2 Sam. v, 8.—R.A.S.M.]

legendary) events is transitory, and makes no impression on more than two or three generations. Thus, to take a concrete instance, we are asked to believe that if such a cataclysm as the deluge, local or universal, were to occur, it would be forgotten in a century or two; whereas legends about thunder-birds, creating beavers, and the rest of the monstrous zoology of the imagination, are preserved unchanged, till wiped out by the various influences of civilization. But if the identification suggested by Père Vincent be accepted—and to me it seems most attractive—we have a living recollection not merely of the fact that once there was a hole at Gezer in which water rose, but even of the very name by which the hole was called. The meaning of the *name* has been forgotten, and an Arabic word roughly similar in sound substituted; and the meaning of the *fact* has been forgotten, and it has been linked (as was inevitable) to the Flood legend.[1] But in spite of these transformations, the fossils of *historic* fact still remain, embedded in the uncomprehending minds of the fellaḥin.

Soon after I had written the above paragraph, Yusif came to me to report a conversation he had had with an aged man of Abû Shûsheh, who happened to come on to the works. There is an old watercourse running west of the mound in the direction of Ramleh, called *Kanat Bint el-Ḳâfir*, "the conduit of the infidel's daughter." I had directed Yusif's attention to it, as perhaps bearing on the local Flood legends, which in some mysterious way seem to link Gezer and Ramleh together. Yusif asked the old man "Who was the infidel's daughter, who gave her name to the conduit?" The man said: "I do not know, unless it be *Fir'aur* [Pharaoh]: *he* was an infidel, and our lord Solomon took his daughter. And a gift came to her from the sea, and it came as far as *Jâzer*: but where Jâzer may be we know not." "Perhaps," suggested Yusif, "it was the place where she was living." "No!" said the old man, very decidedly, "she was living at Latrûn; but the gift came to Jâzer, and we know not where Jâzer is." A more striking illustration of the preservation of historic tradition could not be found. The old man's ignorance of Jâzer, which is Gezer, and his mistake about Latrûn, shows that he has not picked up the story from someone who has overheard me, or any of the scholars who have from time to time visited Gezer in recent years, speak about its historical

[1] See Clermont-Ganneau, *Arch. Researches*, Vol. II, pp. 87, 237.

associations. But wherever it may have come from, the history of 1 Kings ix, 16, has certainly reached this old man. Asked whence he had derived his information, he said he had heard of it from people in a neighbouring village (on the other side of the conduit) called Ni'aneh.

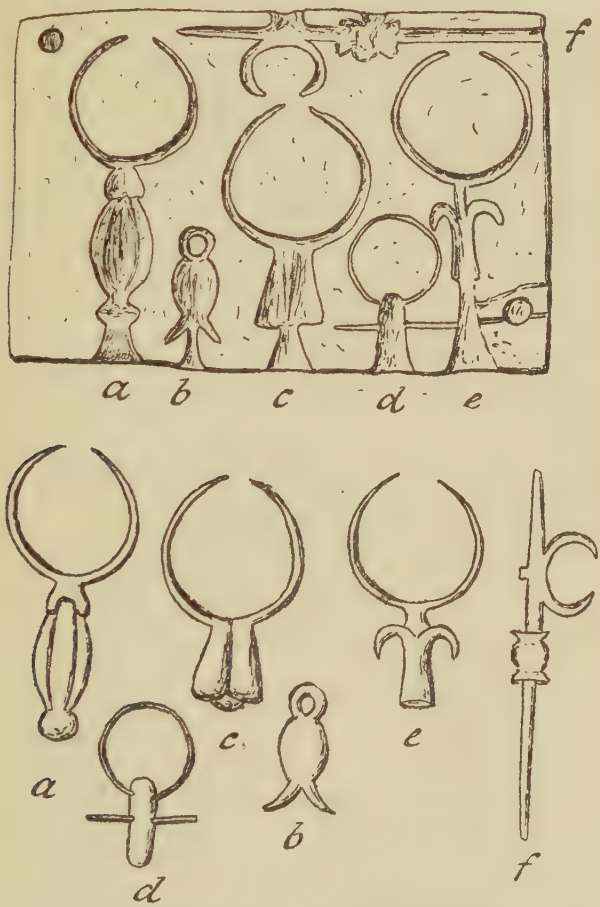


Fig. 3.—Mould for casting Gold Ornaments, with impressions.

One difficulty with regard to the Flood story cannot be passed over—the wide-spread nature of the belief in its outburst *from an oven*. The oven has been placed at Kûfah; in India; in Mesopotamia; and in Damascus: and I believe that in Persian pre-Islamic

tradition there is a similar story. Still, why should the comparatively insignificant town of *Gezer* be named as one of the places where the oven was said to be? And whence did the story reach the Persians, and the Koran [sûra XI], whereby it has been spread all over the Muslim world?

Miscellaneous Objects.

As in the last quarter, I have no buildings of special interest to describe, and the objects found have been for the greater part monotonous duplicates of others, previously found and already sufficiently reported upon. I may describe together under one heading the few antiquities found that were of special interest.

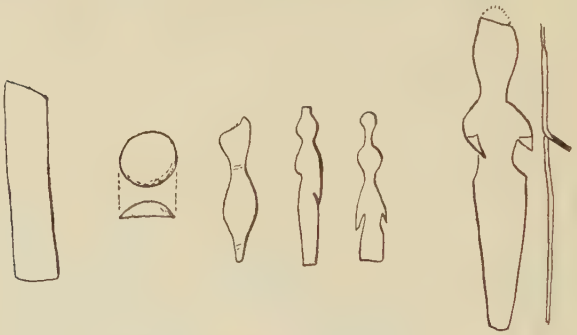


Fig. 4.—Bronze and Silver Figures, &c.

1. In Fig. 3 is represented one side of a mould, made of a hard basaltic stone, polished on the surface, which was found in late third Semitic débris—that is to say, a little before 1000 B.C. It was evidently intended for casting gold or bronze ornaments, probably the former. I have drawn out the ornaments that would result from its use, copied from a wax impression of the object. These are of very curious types: they seem to be ear pendants (*a*, *c*, *e*), beads of elaborate form (*b*, *d*) and an odd little hair-pin, shaped like a battle-axe. The find is interesting as it presents examples of the local taste in jewellery. The stone measures $2\frac{7}{8}$ inches by $1\frac{7}{8}$ inches by $\frac{1}{2}$ inch. There are two mortices, in opposite corners, for receiving tenons projecting from the other side of the mould, which was not forthcoming.

2. Yet more interesting is the series of objects represented in Fig. 4. They were found in a large jar, dating from about 1400 B.C., that was lying in the corner of a room of that period. The jar was the same kind as those which contain sacrificed infants in the High Place and in the foundations of buildings.

The two largest objects of the series is cut from a thin disc of bronze, the others from thin laminae of silver. The length of the more important bronze object is $2\frac{1}{4}$ inches. It evidently represents in outline a human figure. The arms are bent outward from the body, but otherwise the figure is, so to speak, in two dimensions.

Most of the silver objects are broken into fragments and corroded into inseparable lumps of metal; there are about ten representations of human figures, the three most perfect of which are here repre-

FIG. 5.—Fragment of a Greek Inscription.

sented. There were also four minute saucers like that drawn, made of circular laminae bent into a concavo-convex form.

Besides these, there was a thin narrow strip of bronze. The length of the silver figures is $1\frac{1}{8}$ inch, the diameter of the saucers about $\frac{5}{16}$ inch.

This curious deposit appears to me to be a *model* of a foundation sacrifice, in which the human victims are represented by the bronze and silver "men," and the food vessels usually deposited with the victims by the little silver saucers. They recall in some degree the remarkable leaden figures found at Tell Sandahannah (see *Excavations in Palestine*, Plate 85, pp. 154, 155); though their purpose and associations is rather different.

The jar in which this interesting deposit was stored was broken, the neck and mouth being entirely lost. The length of the remaining portion was $24\frac{3}{8}$ inches. It had a pointed base, and no handles.

3. The fragment of Greek inscription (Fig. 5) was not found in the *tell* itself but was turned up by a ploughman in one of the neighbouring fields. It is in marble, and is evidently part of a

Fig. 6.—Iron Key.

Byzantine tombstone. It probably commemorated one of the community that lived in the ruined settlement known as Khurbet Yerdeh, east of the *tell*. It was found close to this site. The fragment is $6\frac{1}{4}$ inches long.

4. An iron key, such as is shown in Fig. 6, is not a common object here. The specimen figured was found in the surface stratum. It is evidently designed for a lock similar to the well-known type of wooden lock still used in native houses in Palestine, in which a certain number of pins (in this case four) fall through the frame of the lock into the bolt and secure the latter until the key is inserted and the pins raised. The keys of such locks are

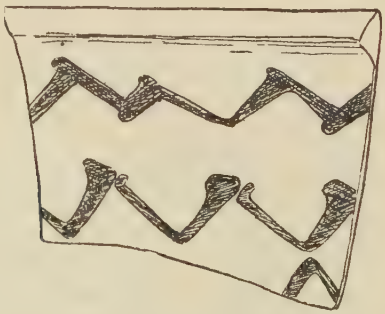


Fig. 7.—Fragment of Painted Ware.

now usually made of wood. The present length of the key is $3\frac{1}{2}$ inches.

5. There is an interesting point to be noticed with regard to the fragment of painted ware, Fig. 7. It is a piece of the rim of a

bowl, of a light brown ware, ornamented with zigzags in black: the date is about 1200 B.C. On close examination of the zigzags they resolve into a series of V's—this is especially to be noticed in the second line—upright and inverted. Only a small fragment of one of the inverted V's is left. It is evident that the potter painted the V's from right to left; the downstrokes of the upright V's, and the up-stroke of the inverted V, were evidently on the side towards the artist's *right*. Had an European potter been painting this ornamentation the thick and thin lines would have been reversed. It follows, *either* that the potter was left-handed, which is possible, *or*

FIG. 8.—Fragment of Egyptian Vase.

that he was influenced in his work by the habit of writing from right to left, as in the Egyptian and Phoenician scripts, and not from left to right, as in the cuneiform. As the sherd is about two hundred years older than the oldest dated example of the Phoenician script at present known, this observation is worth a passing notice.

6. Lastly, I may mention a sherd of an Egyptian cylindrical vase in green enamelled porcelain, bearing in the usual brown lines the name of Ramessu III (Fig. 8). This fragment was found not far from the grotesque figure illustrated in the last report, at the south end of the trench containing the great tunnel. The height of the fragment is $2\frac{1}{4}$ inches.

THE BEDOUIN OF THE SINAITIC PENINSULA.

(*Continued from Q.S., p.* 36.)

By W. E. Jennings-Bramley.

XXI. *Dress.*

All women wear the bourga, a small piece of coarse silk, large enough to cover the face as a mask would do, varying in colour, red or white, according to the tribe the woman belongs to. The Huitat wearing red, the Maasa and Araida red also, and Heiwat and Teacha generally, white. This piece of silk is embroidered in black, green and orange-yellow, and tied on to the head by a ribbon. There is no nose piece as in Egypt. Men and women wear identically the same long sleeved shirt, called the *beredan*. The only difference being that the men wear it white, and the women have it dyed with indigo. The cost of the piece and a half of material which is required to make one shirt, is seven piastres. Over this a long veil or shawl is thrown, made of two lengths of the same stuff as the shirt, sewn together. It is generally bound to the head by some piece of cotton. The waist is clasped by a Syrian money belt and on their heads they wear a small white cap made either of silk or cotton. They have very few ornaments, gold ones very rarely. Sometimes a nose ring of gold, more often of silver. If they can get them, they wear beads and glass bangles, and if a woman has them to spare, though this is not often the case, she will sew small silver piastre pieces on her *bourga*. Both henna and kohl are used medicinally and not as beautifiers. Henna made into a paste and laid on a wound has certainly the property of reducing the heat. I found it so myself. Kohl is said to strengthen the eyes, and is put on by both men and women. Neither ever blacken their teeth, and neither, to return to dress, ever wear the loose trouser of Egypt under their shirts; but the odd thing is that for a man to do so, would, from a Bedouin point of view, be effeminate.

The names of the different parts of their dress are as follows: *shoul*, "veil or shawl"; *bourga*, "face covering"; *toub beredan*, "shirt"; *hasam*, "belt"; *harras*, "beads." Until a woman is married she wears her hair cut across the forehead in what we call a fringe. After marriage, the hair is parted down the middle and drawn back on each side of the forehead. Some plait it into five or six small plaits right down into the roots, others just draw it back. I have never heard of its being shaved nor of its being cut as a sign of mourning, and am sure this is not the custom in any of those tribes I have met.

The men's dress is much more complicated and consists of quite a wardrobe of articles. They begin by putting on the *beredan*—this costs them from seven to ten piastres. Over this comes the *farawa*, a sheep's-skin coat with the fur inside, the skin covered in blue cotton or ornamented with red, sewn on in some large design: a piece for instance coming down in a shawl-like point from the shoulders to the waist and a diamond-shaped piece below this point. Over the *farawa* is thrown the *daffia* (from *daffi*, "to warm"), a large loose cloak made of wool. In Syria, these cloaks are generally white, with a chocolate-coloured pattern; in Sinai most of them are plain black. These cloaks cost from 10*s*. to £2, according to their quality.

Some Bedouins prefer an ordinary blanket to the *daffia*. Others who can afford neither, have to content themselves with the ibex or sheep-skin, called a *gord*, which most Bedouins carry on their saddles, and which they throw across their shoulders and tie round their necks by the legs. The *kouffia*, a large square of cotton or silk, more or less rich in design or material according to the wealth of the wearer, is thrown over the head and secured by the *agal*, a cord of wool, the strains of which are not plaited, but held together at regular distances of about two inches by a gold or silver or merely silk thread tightly twisted round them, forming three alternate lengths of two inches of loose strains of wool, and tightly wound threads of silk or metal.

Under the *kouffia* they wear a handkerchief (*maudil*), and under that a skull-cap (*taggia*), knitted by themselves of undyed camel's wool. The handkerchief is held on by a woollen cord (*mirisa*) twisted twice round the head, but only worn when the *kouffia* and *agal* are not.

There is no uniform fashion in the way they cut and dress their hair. A great many shave their heads entirely. Some wear

their hair long and plait it in many small plaits; others let it hang unkempt, and if it curl it may hang about their faces in curls resembling those worn by Jews. Then, again, a man may change the fashion of doing his hair, and having worn it long may suddenly shave it off. There is, in fact, no rule. Women never shave their heads. Men trim their beards into what we should call a Newgate fringe, except that they allow the hair to cover the whole of the middle of the chin from the lower lip downwards—and they invariably let their moustaches grow. I have never heard of any ceremony or custom attending the cutting of a child's hair.

The men wear the same red cotton belt as the women, but they also wear one of leather with shoulder straps, which cross on the breast, of which the best are made in Maan. To this belt is attached, on the right side under the arm, an iron hook, called the *bersheg*, which is used both to rest the gun when loading it, and to hold the powder horn. The last is made of wood covered with leather, and cut in the shape of a sheep's horn.

Some Bedouin also wear, on the right side, the *dahara*, a strap on which are generally hung two *raabs*, or sections of reeds closed with a plug of felt, in which they carry matches, or sometimes powder. Instead of reeds some have short tubes of brass which answer the same purpose. Others wear as many as eight of these brass tubes in a pouch made like a cartridge belt. This is perhaps the commoner fashion in Arabia.

The *dahara* is a bag attached to long straps, in which are kept tinder, flint, and steel (the *zenad*), this last hanging to a chain fastened to the *dahara*.

The best *dahara* straps are made by the women of Tor, plaited out of finely cut strips of ibex skin. So much for the right side. On the left is carried the pouch the Bedouins make for themselves of ibex or young camel's skin. It generally contains an old ship's nail with which to punch holes for sandals, odd scraps of leather with which to mend them, sometimes a needle and thread, though these last are more often stuck into the lining of their caps. Sword and pistol also are carried on the left side, and the gun slung across the back. I forgot to mention while speaking of the many odds and ends on the right side, the *dellou*, a leather bag made by the Houitat. All kinds of things are put into it, and it is also useful for watering the camels, when the mouth being kept open by a twig placed across it, it serves as a bucket and can be used for

drawing water. In their hands they carry the camel stick (*mahjan*), this is usually cut from the *lōse* = nut. Others, not so good, are made of the *tarfa* that grows in the Wady Arîsh. Arabs often on meeting raise the stick to their heads and, pointing it to the person saluted, salaam in this way silently. They wear many kinds of sandals, the best are those made of female porpoise hide (the male porpoise hide is not good for the purpose). These, however, cost two shillings and sixpence, and are a luxury all cannot allow themselves. The commoner ones are made of three thicknesses of raw camel's hide, sewn together with strips of the same. One seam runs round the sole, the other straight down the centre. The *gibal*, a piece of leather, soft if possible, is pulled through a hole made, when the exact spot, between the big and first toe, can be ascertained by fitting. This leather is cut as a wedge, thick at one end, which end remains in the sole. Two loops are sewn on either side of the instep, through which is drawn a thong of leather, passing behind the heel and tied to the *gibal*; in front it holds the sandal on to the foot. One end of the thong is slit button-hole wise, the other is divided into two longish narrow strips which are passed in and out of the slit, basket-pattern wise, then pulled through the slit in the *gibal*, drawn as tight as the wearer likes, and knotted firmly. This is not undone each time the sandal is put on and off; once it fits, it remains, the foot being slipped in without difficulty.

Another kind of sandal has a broad band of leather across the lower instep, and is more ornamented. The thong, instead of passing round, is folded under and trodden down by the heel. The soles of these sandals are much thicker, but owing to their being stitched together with cotton, instead of leather, they can only be worn in towns. The stones of the desert would very soon cut through the stitches. Wherever and whenever a Bedouin can find the leather band of a driving wheel, he will buy it to cut into belts and sandal soles. Lately, the Bedouin of Tor have discovered the merits of india-rubber washers for the latter purpose. I was astonished to see this, as it is not very long since I was assured by them that the tyres of my bicycle were made of pigskin, and therefore unclean!

The leather belts and sandals of Maan are famous all over the Peninsula. A very good pair of soles may be there bought for a shilling.

I have dealt at length with the subject of sandals because these are all important for any traveller in the desert. I found European boots wear out so quickly, that, although wearing sandals was very painful at first (the *gibal* cutting me between the big and first toe), I persevered and soon acquired a sufficiently hard skin to bear the rub of the leather between the toes.

(*To be continued.*)

GLEANINGS FROM THE MINUTE-BOOKS OF THE JERUSALEM LITERARY SOCIETY.

By R. A. S. Macalister, M.A., F.S.A.

(*Continued from Q.S. p.* 60.)

IV.

At the meeting of 7th December, 1849, Mr. Finn read the following "Journal of a Tour in Lebanon and to the Sources of Jordan" [a continuation of the previous journal].

Acre, Monday, October 22nd . . . . Mr. Finzi took us to the dilapidated mosque of Jazzâr Pasha, a beautiful building of variegated marbles, surrounded by trees, fountains, and flower beds bordered by rich marbles. The paths under the cloistered arcades and elsewhere all of marble. The maintenance of such a place, as well as its original erection and formation must have cost large sums. The severe old pasha is buried in the garden beds, contiguous to the mosque. We were taken in by the sheikh of the place and did not take off our boots. The interior is in keeping with the rest: the whole seems to be of marble, but the dome is gradually falling. Around a nobly sculptured kind of pulpit they have placed a strong scaffolding, covered by planks to keep it from being injured when the dome shall fall upon it. . . . . We . . . . returned to an excellent supper with the Greek bishop. For des[s]ert we had Damascus apples, and they told us that Lebanon snow might be had. During

the conversation I learned that the noble old man, Fra Giovanni Battista of Carmel, was dead. An old gentleman present said that the inscription on the tomb of Major Oldfield is untrue when it declares that he was interred by the French with military honours, for that he was present all the time of that siege of 1799, and remembers Sir S. Smith measuring out with his own feet the ground to be used—"besides, how could the French have got into the town to assist at or perform the funeral?" . . . . .

Tuesday, 23rd . . . . We left Acre at 12.20, the weather being very hot. Passed the Bakhjeh gardens, then the fruit plantation to our left with a few weeping willows, aspen trees and blackberry hedges. Reached Zib (the Achzib of Scripture) a few minutes before 3 . . . . While ascending the chalky promontory we heard great guns from Acre announcing the approach of Bairam; we saw the smoke distinctly. How very grand is the view from the summit overhanging the sea!

Arrived at *'Ain Iskanderûn* at 4.40, where close to the sea a full stream of water rushes into a trench through two circular holes, in a handsomely built Muslim *sabîl* [fountain] and thence escapes to the sea. The stone work has been covered with green moss and creeping plants . . . . Passed *Naḳûra*, consisting of two or three houses, and reached the renowned *Ladder of Tyre* at 5.40. In seventeen minutes we had crossed it and were on the beach again. This curious ascending and descending road is certainly of great antiquity. Approached by a beach and ending in a beach, it is itself a cutting into a chalk cliff which there intercepts the road. It is difficult to imagine how any map-makers came to confound this place with *Ras el-Abyad* (Cape Blanco): it [the latter] is situated along one-third of a deep bay, and scarcely disturbs the line of the semicircle; whereas the stupendous cape of chalk between Naḳâra and Zib is a far more remarkable object, and in every respect more deserving of such a name . . . . . .

The sun had now set, and black clouds were gathering in the south and east. A little lightning in the north . . . . Reached *Ras el 'Ain* at 7.10 and forded its several wide streams of roaring water . . . . arrived in *Eṣ-Ṣûr* [Tyre] at 8 o'clock . . . . .

Wednesday 24th.—Awakened at 7 in the morning by very heavy rain, which lasted three-quarters of an hour. After breakfast we walked a little to the southern bay, in order to point out a piece of conglomerate shells of *murex* combined by strontian, from which I

wished a portion to be broken and sent to me. This is the conglomerate formation upon which an Irish traveller, Mr. Wilde, has made so learned a disquisition, believing it to be the remains of the Tyrian purple dyeworks. On our way across the peninsula, stumbling over broken ground and trenches full of magnificent columns, we started a fine large fox . . . .

Reached the *Kasimiyeh* or Leontes river at 3.15. Here we had luncheon . . . . The river seems to me about the width of the Thames at Windsor . . . . At the other end of the bridge, on the shady side, sat a portly old gentleman upon his carpet, smoking his *chibouque*, with his servants and good horses standing near. This was Luis Catafago, the richest man in Acre . . . . . .

Reached *'Ain el Kantara* at 6.15, as the moon began to rise . . . . arrived in Saida at 8.45. In traversing the square near the house of our Vice-Consul, Signor Abbela, we were informed that they were in deep distress on account of the death of one of the two blind brothers, the one who was the most celebrated for his Arabic learning and poetry. So instead of going to their house . . . . we proceeded to a khan near the seaside. A most dirty and miserable place, and filthy was the best room of all, which they gave us . . . . .

Thursday, 25th.—A filthy place is this khan, yet there are many lodgers in it, and families also . . . . Early I went out to the beach . . . the place was cheerful enough with people arriving from the country bringing goods for market: silk spinners busy in long lines, and boats moving in the bay—some brigs also out at sea . . . . . .

We left Saida for *Jûn* at 1.15, taking with us a kawass of [Sig. Abbela] who had been a servant of Lady Hester Stanhope. We turned off from the Beirut road at the river *'Auleh*, which is considered by the native Christians to be the limit of Our Lord's travelling when it is said that He went into the coasts of Tyre and Sidon . . . . Near the sea the river 'Auleh has two beds, along which it runs alternately in some years, but never in both at once. This year it is not in the same channel as last year . . . . .

Arrived at Jûn at 3.45. Lady H. Stanhope's residence crowns a hill by itself, no other residence or person presuming to touch her hill. The village is on a contiguous hill, with the splendid convent *Deir el-Mukhallis* of the Greek Catholics on another hill at a distance . . . . I first repaired to the ruined house . . . . The gardens and terraces must have been beautiful, and, as we were told, were

always kept in a state of utmost cleanliness. There were large myrtle plants, like small trees, in abundance, besides fruit trees and . . . . red roses blossoming without the least care or notice. The strange lady is buried in the garden, and is covered by a simple stone monument. The house is desolate, though from the purity of the atmosphere the walls look clean and new. Not a roof remains, all having been purposely removed immediately after her death. What an extensive suite of rooms was erected for reception of her guests! We were told that at her death Lady Hester had 100 servants, 40 of whom were women. For five years she had never travelled further than her gardens, and during that time her extensive stables were tenanted only by the two famous mares *Leilah* and *Lulu*—the former of these was that with the curious back—which mares had become so ruined for want of exercise, that when she died they were sold for 300 piastres each. Her ladyship died quietly while smoking her *narghileh*. Amid this desolation there was abundant material for serious reflection, but the whole place must have been far more civilized and cheerful than romantic writers have described it . . . . . .

There is a mixture of Metâwili with the Greek Catholics in this village.

Friday, 26th.—Rose at the very first dawn. We mounted for the journey at 7.40, amid the farewells of a simple, kind-hearted people . . . . We turned aside from the road to descend and then mount a steep, rugged hill to visit the Convent of the Saviour [Deir el-Mukhallis], which bears such an imposing aspect. It is said to be the largest convent in all Palestine, and is considered the headquarters of the Greek Catholic sect. The monks number 110, and the most celebrated of their priests have been educated there. On alighting we first went to the church and saw some good pictures among others of great degradation as works of art. A service was going on in one of the chapels, being gabbled by a priest in white silk and gold, who waved incense also before his altar: his whole congregation consisted of one person, a sort of sacristan or beadle. While looking at this we were invited to visit the President in his rooms above. We found him to be a handsome man of good size and middle age, reclining on cushions at a great window commanding magnificent views of the Mediterranean, the mountains, and Lady Hester's house. We left the convent at 8.45, impressed with the idea that all the inmates we saw were very well

fed, and surprised to see so many women servants about the establishment. A nunnery containing forty under vows is also a fine building, at half a mile distant, with an excellent road to it from the Great Convent. All the contiguous grounds appear to be well cultivated, and excellent roads are in progress.

In three-quarters of an hour the scenery became more picturesque. Then all on a sudden burst upon the view a wondrous scene of valley and plain deep below us, with a river and villages and orchards: cascades dashing down impetuously in several spots of the landscape at once—incessant echoes among the cliffs and rocks—the whole backed by high mountains much clothed in trees, from which was seen issuing the smoke of charcoal-burning. It is the most strangely beautiful scene that I have ever witnessed. Descending a precipitous narrow road we . . . . forded the river in ront of *el-Bifrah*, the most conspicuous village in the plain, at the foot of brown ochreous rocks. Aspen trees (or rather a species of tall poplar, with leaves and long leaf-stalks the same as aspen) lined the river side . . . . .

We began to mount by what we were assured was the only road to Hasbeya—a road so steep and so narrow among thick trees that we required repeated assurances before we could believe this to be the . . . High Road. At first through olive plantation, then among evergreen oak, and higher still the pines—still, as we mounted, looking almost perpendicularly to guess at each time where the road could twist its course next. Still higher towards the frowning, incorrigible, black cliffs touching the sky, the pines grew more tall and numerous, and scarlet berries upon the arbutus bushes. Near what seemed to be the climax we stumbled upon a village named *'Azûr*—where a school of boys were humming away in the open air on the shady side of a house, and a plank suspended near them, which when struck serves for a bell . . . . It seemed a long time since we had seen or heard anything of Muslims—except the one kawass with us—perhaps not since Acre. In this part of the world the hills are crested with Christian convents having bells, whereas in Southern Palestine the hills are crested with Muslim *welys*. Still higher, where the pines are fewer, but taller and straighter than before, were found large patches of wild myrtle, some in blossom, but not much. The wind much stronger. We looked down upon mountain villages all with flat-roofed houses. At noon we overtook our luggage [which had gone on while they visited the convent],

and the boy-servant of the muleteers vowed that his head was turned grey since we left them four hours ago, from the labour and anguish of mind he had suffered on so awful a road. He was continually calling upon God by epithets from the Koran, as "O thou Knower of the East," "O thou Father of Goodness," and alternately cursing the mule or praying that her back might be strengthened. At 12.5 we were at the greatest height, and commenced a descent to *Jezzín* on a slippery road with purple crocuses in blossom at intervals. Arrived at 12.30 at this pretty village in a valley where sycamore, walnut, and apple-trees abound . . . . The inhabitants are Greek Catholics, Maronites and Metawili. Our guide returned home, and we had to get another as well as we could, who assured us that the road before us was worse than that we had already passed over. Before mounting I picked up a fossil shell—this was at 12.45 . . . . . .

After a time we ceased to ascend, but the road was over a horribly broken level . . . . the air like the breath of a furnace, with now and then a momentary gush of cold air between sharp peaks and round summits.

At 3 we were at *Faḳûreh*, a lovely retired village quite surrounded with sycamores, walnut trees, poplars and vineyards, abundance of water in running streams, and long lines of tall oleanders in flower along their courses . . . . then the road improved, and the rocks becoming more friable were streaked with pink and yellow traces of manganese.

At 3.40 we first saw the Anti-Lebanon, and had woody scenery below. Among the mountains to the south the guide pointed and said he could distinguish Safed. We could perceive a long line of [the] Mediterranean . . . . .

Thence we commenced descending into a level space between two hills . . . . thence . . . . a stage lower into a barren valley running southward, where the wind blew very cold. This change in our direction was made on account of the impossibility of pursuing our eastern direction to the *Beka'a*. Down into a green glen, still southwards, emerging from which an astonishing prospect was before us of glens, chalk fissures, and red slopes, as petty items amid an unbounded extent of wild mountain country. After a [while] we arrived on the precipitous top of an amazing descent, at the foot of which was what seemed a narrow stream of pale green, fully occupying a narrow passage between cliffs well bordered

by oleander and other shrubs. Half-way down I first heard the sound of the rushing water . . . . On reaching the foot of the long steep hill the stream became a river, namely, the *Litâny* or *Kasimiyeh*, which debouches near Tyre, and whose classic name is the Leontes—in this place as wide, and very much stronger in current than at Tyre—quite as rapid as the Jordan opposite Jericho, but of beautiful clear water. The green borders which I had imagined to be bushes were in reality gigantic trees in profusion . . . [the sun set and] . . . we continued along the river side for some distance—in some places parapets had been made by the road side for the sake of safety. Crossed an old bridge by moonlight, the rays of which were greatly broken in the . . . . stream—further up, the course of the river appeared to be along a sharp fissure through the heart of a huge cliff. Ascended on the opposite side, rising for a long time . . . . at length we turned again to the north-east, towards the plain with the river Hasbeya flowing through it. Passed close to the village of *Kôkaba* . . . . crossed the little shallow river, but still had a long, tiresome ride before reaching our destination . . . . At length arrived at 8.30 . . . .

We were conducted to the schoolroom (or perhaps chapel room) of the native Protestants, and were speedily surrounded by them. A wedding procession with numerous brilliant lights, and loud native drums and monotonous singing was issuing from the gates of the Emir's palace, being a party of the Harîm going to invite some friends at a distance to the wedding festival . . . . The room we were in was very simply furnished with one plain table, two rude chairs, some shelves—with small religious books and tracts, and an Arabic bible upon the table . . . . . .

Saturday, 27*th* . . . Proceeded to visit the Emirs of *Ḥasbeya*. The ruler of the district is the Emir, but all his sons are also called Emirs. It was the feast of Bairam—and I found the great Emir Sa'ad ed-Dîn a very gentlemanly, well-informed man. On leaving him I was invited to visit his eldest son, the Emir *Aḥmad*, in another part of the palace. This young chief has always proved a good friend to the Protestants, even at times when his father has not been so. In the courtyard of his part of the palace were many retainers in holiday costume, with hawks and hounds. Emir Aḥmad (having first given notice to the *ḥarîm* to get away) took me to a higher stage on a terrace, to see a beautiful and lofty alcove of variegated marbles and fine oriental sculpture, now, alas! sadly

defaced by the brutal Arnaouts, who were quartered there some years ago during a Lebanon warfare. I left the house much pleased with what I had seen of the Emirs . . . . The town is, I think, the cleanest and in best repair of its size that I have seen since I embarked at Folkestone for Boulogne—though it has no good stone buildings or stone pavement . . . . .

Left Ḥasbeya at 12.15 . . . . Proceeding to *Bâniâs*, for some time our road was the same as we had arrived by last night; but of late I have frequently had occasion to observe how very different is actual travelling in the Lebanon from drawing a pencil line over a map from town to town.

At 1.50 we first saw Lake *Ḥûleh* due south of us, and in a few minutes we were down on the plain, which is much strewn with volcanic stone of dark brown, porous and rounded at the edges.

Meeting a peasant with a donkey-load of grapes, I got him to conduct us to *Tell el Ḳady*, one of the two sources of the Jordan, in the middle of the plain, before turning up a short valley to the left to Bâniâs. However, before arriving there we found many little streams running towards the Tell el Ḳady. But on reaching the spot it was an agreeable surprise to find a river appear all in one minute at the foot of a small hill—the water rushing and raving over a rough bed. Plenty of tall aquatic flowers in the water. Here we rode our horses into the flowing stream, and then rested under large [oak] trees on the hill itself . . . . The main body of the water issues from near the centre of the hill; but with all my efforts I could not penetrate the lofty tangled brambles and gigantic scented flowers to see the actual spot of its rising from the ground—though I rode round it.

It wanted about an hour to sunset when we turned eastward for Bâniâs—the hill and castle of which appeared not far distant. There were numerous small streams . . . . yet with all these blessings the plain is neglected and abandoned to a scattered population of wretched Ghawarineh Arabs and some buffaloes. We passed through Dôm trees and scattered stunted oaks, some *kharrûb* trees, and sumach about 20 feet high with its red berries . . . . through a path between good trees, and then all on a sudden appeared Bâniâs . . . at the foot of a steep hill which is crowned with a castle . . . . . .

Sunday, 28*th*.—The people of this place bear a bad character, so we engaged two guards from the village . . . . In a field near our tents are two prostrated granite columns of about 15 feet long by

2 [feet] in diameter, besides a piece of column of common stone on the ground 3 feet in diameter. In another part of the same field is a square capital of a pilaster with some plain moulding, and plenty of squared stones of 2 to 3 feet dimensions; but, indeed, such as these are to be found all about there, and they must be the relics of Herod's temple built in honour of Augustus.

But the great charm of the place is the stream of running water dashing violently over a bed of stones and winding its way to Lake Ḥûleh.

Crossing the ancient bridge to a small ruined square tower of Roman building, we found numerous large rebated stones rolled down, or even some in their places . . . . I did not . . . . ascend to the castle . . . . though it is said there are strange passages and wells to be seen there.

During the day I went once more to the source of the river, the cavern, and the inscriptions. The whole of this site may be described as a semicircular cliff-termination of a valley. Half-way up the cliff, on the natural platform, is the large grotto of Pan: a simple rough ochre-coloured cavity, unpolluted by chiselled marble, as Juvenal wished the fountain of Egeria to be. Near it, on the left hand of the spectator, is a votive niche cut in the solid rock, which formerly held a statue; but on the right hand are several such niches, two of them still bearing Greek inscriptions, one of which has been painfully chiselled at some period in order to efface the inscriptions. However, the first three letters, ΠΑΝ, are still legible. The more legible of the two inscriptions I found to be very different from the account of it given by Burckhardt as quoted by Robinson. I made it out carefully at three different times of the day, as follows:—

Τ[ΗΝ ?]Α$\left[\frac{\Theta}{C}?\right]$ . . ΕΑΝΑΝΕΘΗΚΕ
ΦΙΛΕΥΗΧΩΔΙΟ[Μ ?]ΑΝΙ ~
ΟΥΙΚΤΩΡΑΘΡΙ . . ΗΡΑΥCΙ
ΜΑΧΟΙΟ . . ΟΝΟC

but cannot make out its sense in connexion, only two or three disjointed words . . . . The niches are of pretty device.

Some pieces of small round columns are lying about this platform in front of the cave. From the platform down to the valley is a rough mass of common stones, but at the foot of this heap of

stones gushes out, in two or three places, the brilliant water of the Jordan. But of the water of amazing depth within the cave we could find no trace—on the contrary, we walked about its floor . . . . . .

Robinson must be correct in attributing the real sources of the Jordan to a greater distance northwards, namely to the farther of the two sources of the river Hasbeya, and is right in concluding that it is now too late to set the world right after they have for so many ages declared Bânias and Tell el-Kady to be the fountains of this sacred river.

(*To be continued.*)

FROM HAZEROTH TO MOUNT HOR.

NOTES ON THE TOPOGRAPHY OF THE WILDERNESS.

By the Rev. Caleb Hauser, M.A.

In endeavouring to describe the journeys and identify the encampments of the Israelites in the wilderness, we must keep in mind :—

1. That we cannot, in the desert of the wanderings and the regions bordering upon it, find localities in which, by pastoral or agricultural pursuits only, a multitude of several millions could have found sustenance. "And the consistency of the Biblical narrative is in nothing more manifest than in the fact that it narrates the Divine interposition to give the people water as only an exceptional thing, but the miraculous supply of food as constant and permanent" (S. C. Bartlett, *From Egypt to Palestine*, p. 355).

2. All these encampments must have been near some water supply (spring, well, reservoir, or subterranean water bed). "A Bedouin encampment is never far from water." Even at Kadesh there was a copious supply of water which, however, must have failed, either because of the Israelites long abiding there, or on account of some other natural cause. A miraculous supply was required.

3. Pasturage was the prime requisite. At the close of the period of their wanderings the Reubenites and Gadites had much cattle. The same conditions prevailed that determine the choice of a camping-ground to-day, and Mr. W. E. Jennings-Bramley says: "The choice of a camping-ground depends, in fact, very much more on the quality of the pasturage in the neighbourhood than on anything else" (*Q.S.*, 1907, p. 30).

4. The regular encampments, where the Israelites had their headquarters for several months or more at a time, may have been distant from each other as far as from Ezion-Geber to Kadesh, or more. But halting-places of a night or two may have been within a few miles of each other, as Mattanah (Wâdy Wâleh, the name surviving in its upper course, the (*Wâdy Butmah*) and Nahaliel (Wâdy Zerka Mâ'ain, the upper course, *Wâdy Mâhala*, preserving the name). Compare on this distinction Exodus ix, 15–23.

The Wilderness of Paran.—After removing from Hazeroth, the Israelites encamped in the Wilderness of Paran (Num. xii, 16). This we may perhaps identify with all that desert tract which extends from Ḳadîs, or Kadesh Barnea, unto the very border of the central ranges of the Sinaitic Peninsula. If we consider that the Desert of Shur extended along the eastern frontier of Egypt from Wâdy el-'Arîsh (Shihor) in the north (Josh. xiii, 3) to beyond Marah in the Sinaitic Peninsula (Ex. xv, 22), it cannot cause surprise if the notices we have of Paran assign that desert a reach from the vicinity of Kadesh on the southern frontier of Palestine to the very edge of the Mountains of the Sinaitic Peninsula (Num. x, 12, 33; xi, 1–3; xii, 16). It must, however, be admitted that the Tîh Plateau forms a natural boundary line so distinct and so prominent that the Desert of Paran can hardly be conceived to have extended farther south.[1] If its extent was less than we have assumed, then Num. x, 12 and xii, 16 may admit of a different explanation. Compare Prof. Sayce's note on *Paran on Egyptian Monuments* (*Q.S.*, 1905, p. 169).

The Way of the Mountain of the Amorites, by which the Israelites approached the southern border of Palestine (Deut. i, 19), was, it is quite evident, the direct route from the Sinaitic Peninsula to the Mountain of the Amorites in the Negeb. Compare the similar

[1] Etymologically, Paran (from פָּאַר, "to dig out") seems to designate one continuous hollow or depression, such as that which extends from the Jebel et-Tîh northwards through the central part of the desert to the Negeb.

expressions: "the way of (*i.e.*, to) the Red Sea" (Num. xiv, 25; Deut. ii, 1), and "the way of the wilderness of Moab" (Deut. ii, 8). Deuteronomy i, 2 under correct exegetical treatment, does not state that the Israelites *actually journeyed* to Kadesh Barnea by *the way of Mount Seir*. The way of the Mountain of the Amorites ascended one of the central passes of the Tîh, probably the Nagb Emreikeh (*al* Mureikhy), "the principal pass on to the plateau, and that by which the Bedawin most frequently cross from Sinai to Nakhl."

Rithmah.—If, as I have endeavoured to demonstrate above, the Israelites ascended to the Tîh by one of the central passes, then Rithmah, which, in the Itinerary (Num. xxxiii, 18), is named after Hazeroth, may be sought in the neighbourhood of these passes. South-west by south of the Nagb Emreikeh is *Wâdy Retâmeh* (Palmer's *Erthameh*) with springs, "situated in a pretty and romantic glen" (*Desert of the Exodus*, p. 311) From these springs Robinson's Arabs, on the evening of the 22nd of March, 1838, brought some "good" water. The position of Hazeroth at *'Ain Hudherah* cannot decide against this identification; the ascent to the Tîh being delayed from the early Summer until the verdure of the following Spring should cover the depressions of the desert, the Israelites were encamped for several months near various springs in the Sinaitic Peninsula, without any regard to the route which was eventually taken.

Rimmon Parez was evidently in the Tîh above the passes. According to Robinson the spring of Rejîm is situated on the central route, in Wâdy el-'Arîsh. Dr. Wilson reached the wells of Rejîm after 7–8 hours' travel from the principal pass. They are, according to Rusegger, about 12 miles from the pass of *Wursah*. The route by *Nagb er-Rakineh* falls in with the chief route a little north of these wells (Robinson, note No. XXIV, in the appendix to *Biblical Researches*). Strauss, having ascended by the Nagb er-Rakineh, encamped the second night in Wâdy el-'Arîsh "under tamarisks, and the camels found excellent pasturage"; and Bartlett, at about the same place, near the wâdy, could trace its line of tamarisks in the distance as far as the eye could see (*From Sinai to Palestine*, p. 323). Bonar, also travelling by the Nagb er-Rakineh in March, saw in Wâdy Bârudh el-Ayedeh, evidently not far from these wells, "a flock of seventy or eighty camels feeding, which the Arabs were keeping there a month or two for pasturage." Here then is an

ideal camping-ground, pasturage in abundance at about the time of the year when the Israelites must have journeyed through these parts, also water at the wells of Rejîm, near which the various routes converge, and the name Parez perhaps surviving in *Barudh* of Wâdy Barudh el-Ayedeh.

Libnah (*Laban*).—In Robinson's note on the routes from Mount Sinai, across the desert to Gaza and Hebron (note No. XXIV, appendix to *Biblical Researches*), there occurs as the name of a place situated a little south of Jebel Helâl, *Mukrih el-Ibna*. This, inclusive of the article, closely corresponds to the ancient name Libnah, or Laban. Professor Sayce (*Q.S.*, 1905, p. 169) has suggested that the *Leban* of the geographical list of Shishak may be the Laban of Deut. i, 1. In that list it follows Raphia, identified with Tell Refah, which is situated near this route from Sinai to Gaza, passing by el-Bawaty, or Lebaoth. Leban, furthermore, precedes Ân-Paran, situated north-east from Mukrih el-Ibna some thirty miles. The locality seems well adapted for a large encampment. Dr. Wilson, coming from the south, evidently encamped quite near, namely, at Kâ'a el-Barûk, or Plain of the Pools, which is Robinson's Burkein just south of el-Ibna on this route. From el-Barûk, Dr. Wilson turned eastward, bound for Petra. The distance to Jebel Helâl was no more than 15 or 16 miles (*Lands of the Bible*, p. 277), and as el-Ibna, according to Robinson, is also south of that mountain, the two places cannot be very far apart, Dr. Wilson's description of the plain is given in the following quotation: "By and bye they (the Tiyâhah Arabs) became our guides and conducted us to a pool of excellent water which was most refreshing, both to men and camels. Some other small pools of the same character were quite contiguous to it, and which, owing to the form of the ground, appeared to be fed from every point of the compass" (*ibid.*, p. 270). Making some little excursions in the neighbourhood of their tents, Wilson and his party "were surprised to see one or two small fields of sandy soil in the valley, laid out and enclosed for culture, and to learn that a small quantity of barley and some vegetables were raised upon them" (*ibid.*, p. 275). Fabri, who seems to have taken this route from Gaza to the convent at Sinai, does not mention el-Ibna.

Kehelethah.—From *Kadesh* (Num. xxxii, 18) in the Wilderness of Paran (Num. xiii, 3) the spies were sent forth; and after they had searched the Land of Canaan they returned to the *Wilderness of*

Paran, to Kadesh (Num. xxv, 25, 26). And although, after the sedition at Kadesh, the Lord gave the command: "To-morrow turn ye and get you into the wilderness by the way of the Red Sea" (Num. xv, 25; *cp.* Deut. i, 40), the Israelites yet abode at Kadesh many days (Deut. i, 46), before they took their journey into the wilderness by the way of the Red Sea (Deut. i, 1). During the many days' abode at Kadesh, the events of Num. xvi and xvii probably occurred. Josephus also relates these, together with subsequent constitutional enactments, as having occurred in Pharan (*Ant.* III, 14, 1–IV, 4, 5) before the removal to Idumea (Mount Seir, in Deut. ii, 1). Now the *Targum of Palestine* connects these events with *Kehelethah*. If both Josephus and the *Targum* are correct (as seems probable), then the encampment at Kehelethah is identical with the first encampment at Kadesh in Paran, and the site of Kehelethah must be sought in the vicinity of 'Ain Ḳadîs. For *Kehelethah* the MSS. have μακελλαθ (B), μακελαθ A.F.), μακελαδ (L). Now Makhelath may be regarded *conjecturally* as an earlier equivalent of the later Latin name *Mohaila*, which survives in 'Ain el-Muweileh, a spring and some ruins situated less than eleven geographical miles from 'Ain Ḳadîs. The Latin transformation of the original Semitic name would be very natural, and that *Mohaila* survives in *el-Muweileh* is apparent from the enumeration in the *Notitia Dignitatum* of Mohaila, as a military station of Palestine, before Aila, or Elath. At Muweileh we still find "an abundant supply of water" (*Desert of the Exodus*, p. 351). Palmer says, on p. 354: "There is a good supply of water obtained principally from a number of wells similar in pattern to those noticed as existing near the Nagb el-Mirad (*cp. ibid.*, pp. 319 *sqq*), and the immediate neighbourhood is comparatively fertile, producing many tamarisks and other trees" (*ibid.*, p. 354). Here, then, between 'Ain el-Muweileh and 'Ain Ḳadîs, we have an ideal place for the encampment. Makhelath, as the name seems to imply, was, perhaps, an ancient place of gathering for religious observances connected, perhaps, with the tradition of Hagar's Well, the Beer-Lahai-Roi, between Kadesh and Shur, the Spring of Paran, 'Ain el-Muweileh. Palmer, who regards Muweileh as the seat of an ancient Baal-worship, remarks: "From the extent of the remains and the existence of water in such large quantities upon this spot, I should infer that, in early times, this was the site of a large and prosperous city, one of those 'cities of the south,' it may be,

which the Israelites destroyed. The hillsides are traversed in every direction by well-constructed paths, and traces are also visible in the valley of dams and other devices for irrigation, all of which bespeak a former state of fertility and industry." (*Ibid.*, p. 356). "The hillsides round Muweileh are covered with relics of a primeval people—cairns and dwellings, such as we have noticed elsewhere, and, strangest of all, innumerable well-made heaps of stone, placed with extreme regularity along the edges of the cliffs, and always facing the east. They are too small for tombs, and too far apart ever to have formed a wall; what then could they be? I am inclined to the idea that they are in some way or other connected with the worship of Baal; the altars of the sun-god were, like these, on 'high places,' and would naturally be turned, like these, towards the East" (*ibid.*, p. 355).

In Christian times Muweileh must have been the seat of an archbishopric, namely that of Pharan, which by some has been located in Wâdy Feiran of the Sinaitic Peninsula. The MS. which Palmer copied at Jerusalem (*ibid.*, 550 *sqq.*) states that Pharan was four stages from Malatha. Now 'Ain el-Muweileh would seem to be about four stages distant from Khurbet el-Milh, and Palmer found at Muweileh signs of Christian occupation (*ibid.*, p. 354). The *Notitiae* enumerate in the following order: Cyriacopolis or Characha (Kerak), Adria (Ptolemy's Adra) later removed to Adroga (ed-Derajeh near Buseireh), Gabalorum or Afra (Ufrûh near Petra), Aelia, Pharan, Helenopolis, Mount Sinai; which last two names are transposed in the Jerusalem MS.

Shapher.—It need not cause surprise to find Haradah, enumerated second in order after Kehelethah, away down in the Sinaitic Peninsula at Jebel 'Aradeh; for we know that Israel, leaving Kadesh, went into the wilderness by the way of the Red Sea, and once in the wilderness, they probably encamped no longer than a day or two at a place until they reached their destination in the Sinaitic Peninsula. Mount Shapher, however, may have been so near to Kadesh that in the narrative of events this encampment, like that of Makhelath, is comprised in the many days' abode at Kadesh; it was probably in *Wâdy Sheraif* at the foot of *Jebel Sheraif*. The transposition of radicals in names is of frequent occurrence, and S. C. Bartlett, who passed through the wâdy in 1875, remarks: "Vegetation was scattered nearly throughout its whole extent" (*From Egypt to Palestine*, p. 339).

Tarah.—As the Israelites, after leaving the vicinity of Kadesh, compassed[1] Mount Seir many days, we should expect to find the stations following Haradah quite near the 'Arabah. Tarah was probably in Wâdy Talha, which enters the 'Arabah south of the great Wâdy Ghamr. Burckhardt describes it as a broad wâdy full of tamarisks and acacias. Within several hours from it is 'Ain Gharandel.

Hashmonah (*cp. Heshmon*, Josh. xv) may have been at *'Ain Husab* in the wâdy of that name, north of 'Ain el-Weibeh. The names correspond.

Moseroth may perhaps be identified with Wâdy *Muzeira* (Palmer) or *Muzeiri'ah* (Robinson) south-west of Kadesh. The names correspond—the exchange of *s* (ס) for *z* (ז) occurs—and the locality is a very suitable one for a large encampment. Robinson, crossing this wâdy on April 10th, 1838, says: "We here entered a large plain, or basin, drained by a watercourse near the middle, with its branches called Wâdy el Muzeiri'ah, running south-west to Lussân. This we reached at a quarter past seven. This whole basin was full of shrubs and vegetation, and seemed capable of tillage. Indeed, in several spots we saw traces of rude ploughing; and were told that in years of rain the Arabs are accustomed to plough and sow here. A thin meagre grass was springing up in various places. Such spots as these we had not seen nor heard of since passing Wady Ghŭrŭndel on the Gulf of Suez. In all the region of the Tawarah, the 'Amrân, and the Haiwât, there are none." But Robinson did not visit Wâdy Feiran in the Sinaitic Peninsula.

Bene Jaakan (*Beeroth Bene Jaakan*).—In a suitable position with regard to both Moseroth which precedes and Chor Hagidbad which follows the name in the Itinerary, are situated the *Biyar Mâyein*. The water of these wells is described as being peculiarly good and "sweet as the waters of the Nile" (*Desert of the Exodus*, p. 345).

Chor Hagidgad (*Gudgoda*) must have been in *Wâdy Ghŭdhâghidh*, south-east of the Biyar Mâyein, in the Badiet et-Tîh. *Judjoda*, the reading of the Arabic Version in the London Polyglott, cannot be regarded as decisive against *Ghŭdhâghidh*. Robinson, who encamped in Wâdy Ghŭdhâghidh on April 8th, 1838, describes it as broad and sandy; yet, approaching it from the south-east, he had found

[1] Taking into consideration Deut. ii, 3, the word cannot mean anything more than that the Israelites moved hither and thither, keeping the eastern mountains nearly always in view.

the herbage and the few trees increasing. At a distance of about 12 miles ($4\frac{3}{4}$ hours) in Wâdy Ghaidherah,[1] is "one of the chief watering-places in these parts." It may be assumed that the Israelites, after removing from Moseroth and the Wells of the Children of Jaakan, remained at Chor Hagidgad no longer than necessary.

Jotbathah (*Jotbah*) was "a land of rivers of water" (Deut. x, 7). In the Greek MSS. the name has various forms: ετεβαθα, ιετεβαθα(ν), ιτεβαθα, and ταβαθα. *Wâdy Taba* (Laborde) seems to have preserved the name. The loss of the initial *J* is paralleled in Jericho = *er-Riha* and other names. The second name following in the Itinerary is Ezion-Geber. Of the rivers, or "torrents," of water (נחלי מים), however, nothing seems to be known, unless this description of Jotbah finds elucidation in a curious phenomenon observed by Laborde and other travellers on both sides of the Elanitic Gulf. I give Laborde's description: "This valley (Wâdy Taba) runs towards the north-east, and becomes very wide on its approach to the sea. It is planted with a considerable number of tamarisks, and low bushy palms crowd the shore. *On making a hollow in the sand, we easily found tolerably good water.*" (*Mount Sinai and Petra*, p. 91. Compare also pp. 121 *sq.*)

Deut. x, 6–10.—We may accept this fragment as historical and referring to the journey of the Israelites after their second departure from Kadesh. Perhaps the Samaritan text, which has Beeroth Bene Jaakan and Moserah transposed, must be accepted. Then the route from Kadesh to Moserah, or Moseroth, and thence by Beeroth Bene Jaakan, Gudgoda and Jotbah to Zalmonah may well have been the course taken by the greater multitude with flocks and herds; while the official encampments were Kadesh, Mount Hor and Zalmonah. Perhaps at Zalmonah their onward progress was deferred until the scattered multitudes were all congregated. There would remain, however, one serious difficulty. In *Deut.* x, 6, Aaron is said to have died at Moserah. He may have died while the greater part of the people was at Moserah waiting to direct their course according to the answer Moses might receive from the Edomite monarch; but his death cannot have occurred *at* (*in the vicinity of*) Moserah, if this be identical with Moseroth. If the text really

[1] An encampment in Wâdy Ghaidherah, the abode of the Gezrites (1 Sam. xxvii, 8), is not to be looked for.

states that Aaron died at Moserah, then (the present text being correct) this place must have been under Mount Hor, and, indeed, not necessarily identical with Moseroth. Yet the identity of both would seem probable: in which case the identification of Moseroth with Wâdy Muzeira would fall to the ground.

Deut. i, 1.—This passage has puzzled the commentators. The difficulty is not a *geographical* one: there can be no doubt but that Pharan is the locality west of Kadesh, in which the Israelites were encamped "many days": that Tophel is the modern Tûfileh, Laban at el-Ibna near Egyptian territory, Hazeroth and Dizahab at 'Ain Hudherah and edh-Dhahab, the limit of the wanderings in that direction. A possible solution of the *exegetical* difficulty is this: Moses communicated the various legislative enactments contained in Deuteronomy (as to their essentials at least) to the Israelites while wandering in the wilderness (Deut. i, 1); but Deuteronomy as a whole was delivered to the people just before entering Canaan (Deut. i, 5).

RAUWOLFF'S TRAVELS IN PALESTINE, 1573.

By R. A. Stewart Macalister, M.A., F.S.A.

Dr. Leonhart Rauwolff, a physician of Augsburg, started on the 18th of May, 1573, for a journey (which proved full of adventure) through Syria, Palestine, and Mesopotamia. His primary interest was botany, especially the study of medicinal herbs, and at all stages of his route notes on the plants that he added to his collection occupy a large part of his record of travel: but in the intervals of botanizing he made many other observations, which are of considerable value, as there are not many sources of information generally accessible regarding life, manners, and customs in the nearer East at the time in question.

Rauwolff's account of his journey was translated into English and published in 1738 [second edition]. A copy of this translation came into my hands recently, and when I had examined it I concluded that it was well worthy of an important place in the series of early travels in Palestine that I have from time to time been contributing to the *Quarterly Statement*.

We may pass over our traveller's ride from Augsburg to Marseilles, where he reached 5th June, 1573. Here he had to remain till the 1st September, while his ship, the *Santa Croce* (Antony Reinard, master), was being laden, provisioned for three months, and provided with guns and all other necessaries. On the 2nd September they hoisted sail, and (narrowly escaping shipwreck by colliding with another vessel) started on their journey.

The sea-voyage also is irrelevant to our present purpose. It was at least as full as usual of the common incidents of Mediterranean travel, of the days before steamboats—sea-sickness, contrary winds, and other disagreeable experiences. Of these Felix Fabri has left us a grim account, with the picturesqueness of which Rauwolff's more prosaic narrative cannot compete. It will suffice to say that on the 24th September they reached Cyprus, and the same day saw the high mountain, Libanus, in Syria, "two hundred miles "distant from us;" and so at night got into the harbour of Salamine where, Rauwolff tells us, "is made the best bay salt in the world."

"Here we discharged three guns, for joy of our safe arrival, and "some of us landed, together with our master, to take in water, "and to enquire after our friends and acquaintance. No sooner "were we landed but we met with two travelling Turks, with an "Italian that understood their language. They spoke to us by their "interpreter, and conducted us to their colonel, who was encamped "near the market-place of Salamine upon a hill, where one might "see a great way off into the sea. After an hour's walk we came "in sight of him, and saw about thirty tents, and among them his "also, where we saw some curious tapestry spread, and him sitting "in the midst, with a delicate white turbant, and a long red-lined "*caban*.

"He held in his hand a long iron, like a grater we use to grate "bread withal, only it was a great deal smaller. The Turkish "persons of quality have generally such irons in their hand in the "summer-time; which they put in between their back and cloaths "to scrach (*sic*) their backs when they itch. About him sat some "more gentlemen bended down, and others kept centinel without "his tent, with guns and scymiters well provided. Amongst the "rest there was one of a good presence covered with a Tyger's "skin, that held a great iron club in his hand. Upon his desire we "went to him, with the usual reverences, according to their custom, "bending our head and the whole body downwards, and laying the

"right hand upon our breasts: our master also pulled off his shoes, "went in, and sate down with the rest before him: but we two set "ourselves down without upon two seats that were brought us. "Then the Lord began to ask our master, by his interpreter, from "whence we came, how long we had been a-coming, what merchan- "dizes we had brought, and whether we designed to make any sale "there: which questions our master answered. Then he began to "enquire after news: *viz.*, whereabouts the Spanish Armada was at "present, and how strong it was reputed; whether the king of "Spain had made any leagues with other princes; and how the "king of France did agree with his Hugonots . . . . . After "this conference had lasted for half-an-hour he dismissed us with "great civility and gave us leave to go about our affairs."

There being no business to do there, they set sail at once for Tripoli, which, however, they did not reach till the 30th September. The harbour here he describes as being "in some measure sur- "rounded by rocks," and commanded by five castles like high towers, "about a musquet-shot apart, where Janisaries are kept "in garrison to cover the ships in the harbour." The town itself was about an hour's journey from the harbour, and they left about nightfall to make their way thither, escorted by "some Turks . . . "armed with good strong cudgels to keep off the wolves called "Jacals." The town gate they found shut, but one of their escort called to some Frenchmen, established in an inn close to the wall, requesting him to go to the "Sangiacho" to have the gate open. "In the meantime that we staid before the gate, another that was "an enemy to our friend ran also away, and bespoke some Turks "and Moors to set upon us, which they were very willing to do, "and came with all speed through another gate that is never shut, "along the wall to us, fell unawares upon us, struck at us, and "took hold of us, chiefly at our good friend, for whose sake all "this was done; others drew their scymiters upon us, so that I "thought we should have been all cut to pieces. While this was "a-doing the gate was opened, and some Frenchmen and their "Consul himself came to our assistance, and spoke to their fellows, "earnestly exhorting them to desist, and to let the cause be decided "by the *Sangiacho* and *Cadi*, which at length they did. So we "came after this unfriendly welcome in the crowd into their "*Fondique* [the inn above mentioned] where we remained all the "night."

Rauwolff's description of Tripoli is so vivid and interesting, and such an excellent picture of a Syrian town in the sixteenth century —a period of Syrian history about which comparatively little is known—that I feel no apology is needed for making very full extracts from it.

"The town *Tripoli* is pretty large, full of people, and of good "account, because of the great deposition of merchandizes that are "brought thither daily both by sea and land: it is situated in a "pleasant country, near the promontory of the high mountain "of *Libanus*, in a great plain toward the seashore, where you may "see abundance of vineyards, and very fine gardens, enclosed with "hedges, for the most part consisting chiefly of *Rhamnus*, *Paliurus*, "*Oxyacantha*, *Phillyrea*, *Lycium*, *Balanstium*, *Rubus*, and little *Palm-*"*trees* that are but low, and so sprout and spread themselves. In "these gardens as we came in we found all sorts of sallating and "kitchen-herbs, as endive, lettice, ruckoli, asparagus, seleri—whose "tops are very good to be eaten with salt and pepper, but chiefly "the sort that cometh from *Cyprus—Taragon*, by the inhabitants "called *Turchon*, cabbages, colliflowers, turneps, horseradishes, "carrots, of the greater sort of fennel, onions, garlick, &c. And "also fruit, as water-melons, melons, gourds, citruls, melongena, "sesamum (by the natives called *Samsaim*, the seeds whereof are "very much used to strow upon their bread) and many more; but "chiefly the colocasia, which is very common there, and are sold all "the year long: I have also found them grow wild about rivulets, "but could never see either flowers or seeds on them. I found also "without the gardens many dates and white mulberry-trees, which "exceed our aspen and nut-trees in height very much; and also "pomgranat-trees and siligua, which the *Grecians* call *Xylocerata*, the "*Arabs*, *Charnuby*. Also olive and almond-trees, and sebesten, the "fruit whereof are to be had at apothecaries' shops by the same "name: *Poma Adami Matth.* But in great plenty there are citrons, "lemons, and oranges, which are as little eaten there as pears or "crabs here . . . . . Without, at the seashore, near the old "town of *Tripoli* (which together with many more, as *Antiochia*, "*Laodicea*, &c., in the year of our Lord 1183 was so destroyed by "an earthquake, that nothing but a few marks remain) there were "more spring-gardens, which some of the merchants still remember. "But these were a few years agone by the violence of the seas so "destroyed and so covered with sand that now you see nothing

" there but a sandy ground, like unto the desarts of *Arabia*. Yet " at *Tripoli* they have no want of water, for several rivers flow down " from the mountains, and run partly through the town, and partly " through the gardens, so that they want no water, neither in the " gardens nor in their houses.

" The new town itself is of no strength, for it is so meanly " walled in, that in several places, in the night, you may get in and " out; but within there is a citadel situated upon an ascent near " the water, where a garrison of a few Janisaries is kept. They " have low houses, ill built, and flat at the top . . . . . and " the neighbours walk over the tops of their houses to visit one " another . . . . . They have not great doors, gates, or comings-in " from the street as we have in our country, except some few " merchants' houses, because they use neither wagons nor carts " . . . . . In a great many houses the comings-in are so dark and " deep, that one would think he were going into a cave, or cellar, " but when you are come through this entry into them, you see, in " some, great courtyards wherein are cisterns, to wash themselves " in; in others large halls, paved, and therein some ascents that go " up two or three steps, paved delicately with marble, which they " keep very clean and adorned with tapestry, whereupon they sit, " and this is covered with a large arch left open at one side, that " the *Turks* may, chiefly in the summer, sit underneath them very " airy."

[After describing the wooden locks and keys, still common in the country, he proceeds]:—

" The streets are but narrow, paved with broad stones, and have, " chiefly those that are great roads, a channel in the middle of " them, about ten inches broad, so that a laden camel may walk in " them with ease, or that a man may step over them, which they " say are made that the caravans may be obliged to walk in them, " one after another, in good order, that people may walk in the " streets without being disturbed by them. And, that these channels " may be kept clean and dry, they have, in some places, some " hidden drains covered with broad stones, that as well the rain- " water as that of the wells, may run away through them.

" They cannot brag of any fine buildings, save only the *Mosques*, " or temples, into which no *Christian* must come, except he hath a " mind to be circumcised, and so turn *Mammeluke*, or *Renegado*; " and also some great houses, by the natives called *Champ* [khân],

" or *Carvatscharas* (caravanseries), wherein are a great many shops " or warehouses, and chambers by one another, as is in stately " cloisters, in the middle thereof there is a great courtyard, where " the strange merchants (that daily bring their merchandize in " great caravans) do inn, considering that the Turks keep no " other inns. The inns commonly belong to the *Grand Seignior*, " or his *Basha*, which they build in several towns to get themselves " a yearly revenue, as the *Venetians* do in *Venice* out of the *German* " house."

Then follows an enthusiastic description of a Turkish bath, with plentiful use of such adjectives as "glorious," "sumptuous," and the like. As this does not essentially differ from the account of a modern establishment of the same nature (save that the older institutions appear to have been cleaner than their modern representatives) we need not reproduce it. One of Dr. Rauwolff's companions had the misfortune to have his neck sprained, "so that " he could not turn his head in several days after it," by the " black Moor " attendant, who was charged with the duty of rubbing him down.

" Concerning their traffick, there are in the town (because there " is there a very great deposition of all sorts of merchandizes, that " are brought thither from great distances) a great many merchants, " chiefly *French* and *Italians*, which have two wise, understanding, " and grave Presidents, of which the one that liveth here is a " *Frenchman*, and the other at *Aleppo*, a *Venetian*, called Consuls, " to assist their countrymen with good counsel. They are sent " thither by their governments, and confirmed, and have great " privileges given them of the *Turkish* Emperor, to let the " merchants, with their commodities, lodge with them, and to " defend them against any assault of the *Turks* and *Moors*, that " they may trade and deal without disturbance. These Consuls " were [wear] still their usual habits, made of red sattin, velvet, " or damask, etc., very richly adorned; and they bring along with " them taylors, shoe-makers, but chiefly their physicians, apothe- " caries, barber-surgeons, and ministers, &c., and have, besides them, " their interpreters, skilful in the *Turkish* and *Arabian* language, " chiefly the Consul of Venice, because he must stay there but " three years; when they are expired, the *Dogue* sends another in " his place. When the new one is arrived at *Tripoli*, he dare not go " on shore before the other gives him a visit of reception in the ship.

" To these two Consuls are given two large buildings, called " by them *Fondiques*, situated near two gates of the city, which lead " towards the haven and the seashore, that they may the easier " send their goods in and out. There are, all day long, a great " many Moors, with their asses, that stand waiting for an oppor- " tunity to conduct merchants and seamen with their goods in and " out. These two houses are large, and have abundance of vaults " and chambers, so that there is room enough to lodge both " merchants and their goods. With the *French* are also lodged " those from *Genoa*, *Florence*, *St. Luck*, *Germans*, *Dutchmen*, &c., as " also with the *Venetians*, those of *Candia*, *Corfu*, &c., that are " under their master's jurisdiction. These *Fondiques* have no more " than one large gate, where Janisaries keep watch; when their " masters, the Consuls, go out, they are accompanied with a " multitude of merchants and their servants, and they are in great " authority with the *Turks* and *Moors*, even beyond the *Bashaw* " himself. They always take along with them their Janisaries, " which go before with great and long cudgels, and beat the people " out of the way, even the *Turks* themselves.

" The merchants have daily great conversation with the *Jews*, " for they know a great many languages, and the prizes [prices] " of all merchandizes, how to buy and to sell them; wherefore they " always help to conclude bargains in merchanizes, pay the money, " and give bills of exchange, wherefor they have their brokerage. " I have seen chiefly three sorts of their silver coins, *viz.*, *Aspers*, " *Medin*, and *Saiject*, which are very good, and pass through all " *Turky*. When great sums are paid, they do not tell the whole, " but only part of it, and weigh it, and so take the rest propor- " tionably by the same weight. Of gold coins they have only " ducats, which are made of fine gold, and are very limber; beside " these you hardly see any other coins but *Venetian Ducats*, *French* " *Testons*, *Joachims Thalers*, of which they have so many, that they " often do not pay with them great sums and their bills of ex- " change, but turn them also into their own coin. So that there is " abundance of *Jews* throughout all *Turkey* in any trading-town, " but chiefly in *Aleppo* and in this town of *Tripoli*, where they " have built a very large habitation and a delicate synagogue. " These *Jews* have the revenues of customs of the *Grand Signior* in " their hands, so that nothing can be brought in or out, but it " must go thro' their hands, which is very troublesome to the

" merchants. Those that buy anything of them must have a special " care that they be not cheated, for they are full of it, insomuch as " they confess, of themselves, that nobody can get anything by " them, except he will be a greater *Harmani* [1] (that is cheat) than " they, that dare to sell wallnuts for nutmegs or myrobolans.

" Concerning the merchandizes: if one will see several sorts of " goods, they are to be found in the *Carvatscharas* or *Champen*, " whereof I have made mention before, but chiefly in the *Batzaren* " or houses where they buy and sell, or exchanges. These exchanges " are wide and long, and partly arched, partly covered with timber, " that you may walk and trade there without being wetted, they " have shops on both sides, which are also kept by handicrafts and " tradesmen, as shoe-makers, taylors, sadlers, silk-embroiderers, " turners, copper-smiths, cutlers . . . . . and many more, " which are very orderly distributed and placed in their several " streets and places. They also drive a great trade in silk . . . . . " which is convey'd thither from the adjacent places; for mount " *Libanus* is inhabited by a numberless people, that live by spinning " and working of silk, but chiefly they of Damascus, where is such " plenty of silk that a merchant may quickly lay out upon it many " thousand ducats . . . . . Further, at a certain time of the year " there is brought from *Damascus* and other adjacent places to these " *Batzars* so great a quantity of large and well-tasted Cibebs,[2] a kind " of raisins, having but one or no stone, that several ship-loads are " sent from thence to us . . . . . But of all the tradesmen there " are not so many of one sort as of them that only deal in soap " and potashes, for of these ashes (besides soap) several ship-loads are " yearly sent thence to *Venice*, which they use for making of glase " as well as soap. These ashes are made chiefly of a herb called by " the *Arabians*, *Schivan*, whereof there are two sorts . . . . . one " whereof is not unlike to our little *Kali*; it is a thick and knotty " plant, with several small sprigs growing out of it, which have " several full buttons at the top, and underneath small pointed " leaves . . . . tasting somewhat sharp, the leaves thereof are " underneath white, on the other side the colour of ashes. The " other sort becometh also many stalks which are full of knots like " our *Esquisetum*, and underneath them appears a woody and ash-" coloured root.

[1] *Ḥarâmi.* [2] Zabîb.

" Both these herbs grow thereabout in great quantities and are " burnt into ashes upon the high mountains, in burning thereof " there settleth an oily matter underneath towards the bottom, " which united with the ashes is almost as hard as a stone when it " is cold: at the top thereof a part of the ashes remains unmix'd " and loose, therefore it is not so good as the rest. These ashes are " brought down from the mountains upon camels' backs by the " Moors, to some merchants that drive a great trade with them, for " partly they send away into foreign parts, and partly they make " soap of them, some more, some less, according to every one's " capacity and pleasure. The way they make their soap in *Syria*, I " am informed, is this, *viz.*: They take commonly twelve hundred- " weight (or twelve centners) of these ashes, which in the summer " they divide into eight, and in the winter into four parts, because " the soap is sooner boiled up in winter, for the heat being then " included by the outward cold is more vehement than in summer. " Of this they take first one part and make it into a good sharp " lye, which they pour into a very large kettle or cauldron made " of stone, with a large bottom made of a copper plate, and very " thick, wherein they have before put sixteen hundredweight " of sallet-oil, and let it simper for twenty-four hours, pouring " daily in more lye of another part. But before it is quite boil'd up " (which in winter requireth perhaps five days, and in summer nine " or ten) they take an hundredweight of quick-lime, and mixing it " with the ashes, draw a lye from it, which they put two days before " it is quite enough into the cauldron, more or less, according as " they find it thick or thin. But if it should happen, that there " should be too much of the lye in the kettle, they have a cock " coming out of the copper-plate, whereby they let out as much of " the lye as is convenient. When it is almost boil'd up, they take " out, with a copper kettle that holds eight or ten pounds, the " thicker part of the soap that swimmeth on the top, and pour it " upon the floor, which is covered with lime or chalk beaten to " powder; let it lie there for one day in winter and two days in " summer, and it grows so hard that they can walk over it; then " they make it smooth, cut it into square pieces, and put their " marks upon it."

(To be continued.)

A JERUSALEM CHRISTIAN TREATISE ON ASTROLOGY.

By Miss Gladys Dickson, Jerusalem.

The following is a translation of the first part of an Arabic manuscript which was lent me, a short time ago, by a certain Arab living in Jerusalem, who had just discovered the manuscript amongst an accumulation of things that he found lying in a house he had lately bought. It was with considerable difficulty that I obtained the loan of the manuscript from him, as he was very unwilling to part with it, and was anxious that no one should even see it.

The book consists of 112 pages, measuring $6\frac{3}{4}$ by 4 inches, prefixed to which are:—8 pages originally blank, now covered with the scribblings of owners; 1 page preface; 9 pages index; 1 page blank; and 1 page scriptural mottoes as translated below. The last 23 pages of the book are occupied with medical recipes, but as the astrological part forms a complete whole, I am confining myself thereto. In addition to the above-mentioned are 14 pages, 12 of which contain notes, written by the different owners of the book, chiefly on historical events. The remaining 2 pages are blank.

The manuscript is written in black ink, emphatic words and headings in red. The handwriting is fairly legible, but the spelling is bad, even such mistakes as اكطر for اكثر occurring sometimes. It is roughly bound in cardboard, and covered with leather slightly ornamented in the centre of each cover and round the edges.[1] I append for the convenience of readers a list of the star-names:—

ʿAḳrab	عقرب	Scorpio.
Asad	اسد	Leo.
ʿAwwâ	عواء	4 stars in Virgo.
Baldah	بلده	. . . . .
Baṭn el-Ḥût	بطن الحوت	A region in Pisces.
Buṭain	بطين	3 small stars in Aries.

[1] A transcript of the original is deposited in the Palestine Exploration Fund Office.

Dabarán	دبران	α Tauri (Aldebaran).
Dabrah	دبرة	. . . . .
Dâli	دالى	Aquarius.
Dhanîbâ	ذنابا	. . . . .
Dhirâ'	ذراع	2 bright stars in the head of Gemini.
Faliah	فلية	. . . . .
Farghu 'l-Mukaddam	فرغ المقدم	. . . . .
Farghu 'l-Muwaḫḫar	فرغ الموخر	. . . . .
Ghafir	غفر	ι, κ, φ, Virginis.
Ḥak'ah	حقعه	Head of Orion.
Ḥamal	حمل	Aries.
Ḥan'ah	حنعه	5 stars on the left shoulder of Orion.
Ḥarthain	حرثين	. . . . .
Ḥût	حوت	Pisces.
Iklil	اكليل	. . . . .
Jabhah	جبهة	The forehead of Leo.
Jadi	جدى	Capricornus.
Jawza	جوزا	Gemini.
Ḳalb	قلب	A bright star in Scorpio.
Ḳaws	قوس	Sagittarius.
Malak ed-Dunya	ملك الدنيا	. . . . .
Mirîḫ	مريخ	Mars.
Mîzân	ميزان	Libra.
Muštari	مشترِ	Jupiter.
Na'âyim	نعيم	. . . . .
Nâṭiḥ	ناطح	α Arietis.
Natrah	نترة	. . . . .
Sa'âdat ed-Dunya	سعدة الدنيا	. . . . .

Sa'du 'l-Aḫbîyah	سعد الاخبية	γ, η, ζ, π, Aquarii.
Sa'du Bula'a	سعد بلع	3 stars in the right hand of Aquarius.
Sa'du edh-Dhâbiḥi	سعد الذابح	α, β, Capricornus.
Sa'du es-Sa'ûd	سعد السعود	β, ξ, Aquarii with c Capricornus.
Saraṭân	سرطان	Cancer.
Šaraṭain	شرطان	2 small stars in the horn of Aries.
Ṣarfah	صرفة	Cor. Leonis.
Sha'ra Yamani	الشعرى اليمانى	Sirius (α Canis).
Simak	سماك	Spica (α Virginis).
Šulah	شوله	λ, υ, Scorpionis.
Sunbulah	سنبله	Virgo.
Ṭarf	طرف	2 small stars in Leo.
Thawr	ثور	Taurus.
Thurayya	ثريا	Pleiades.
'Uṭârid	عطارد	Mercury.
Zabrah	زبره	2 stars in Leo.
Zuḥal	زحل	Saturn.
Zuḥarah	زحرة	Venus.

The Preface.

This book has in it things of usefulness for easing the mind and the conscience. It is called "The Book of Compilation" and is good in every sense. The meaning of "Compilation" is, that it contains matters relating to astrology, and matters relating to medicine, and valuable items of usefulness relating to temporal matters compiled from famous masters such as Aristo[tle] and others: and whoso looks on it will get temporal consolation. The copyist and corrector is the despised slave Yuhanna Nakli the wretched, of orthodox religion, of Jerusalem by residence. And I have copied it with my sinful hands that whoso shall see it may give a blessing for me for its contents. And I ask the Lord for pardon of my shortcomings, because I ask no other.

Search the Scriptures, ye will find therein life eternal for your souls. John v, 39.

Seek, ye shall find: ask, ye shall receive: knock, it shall be opened to you. For everyone that asketh, taketh, and everyone that seeketh, findeth, and everyone that knocketh, to him it is opened. Matthew vii, 8, and Luke x, 9 and 10.

Compartment 1

The Apostolic	Jesus Christ	Lot

[1]

Compartment 3 Peter	*Compartment* 2 Bartholomew
Compartment 5 Andrew	*Compartment* 4 Paul
Compartment 7 John	*Compartment* 6 James
Compartment 9 Mark	*Compartment* 8 Philip
Compartment 11 Thomas	*Compartment* 10 Luke
Compartment 13 Simon	*Compartment* 12 Matthew
Compartment 15 Matthias	*Compartment* 14 Judas

The First Compartment: Know, O man! that the hope thou hopest will be fulfilled; thou shalt have good fortune, and thine shall be success in what thou hast projected and conceived. Carry out thy intention in what thou hast undertaken: thy desires will be accomplished. Weary not, they will be accomplished in peace. [2]

The Second Compartment: Bartholomew. O man! consolation will come to thee from a quarter thou knowest not, after great weariness. Wait and hasten not: if thou waitest thou shalt see good and a smoothing of circumstances. Joy will be thy reward and thou shalt have one to guide thee to good who will not deceive thee. Accept his counsel: and commit thyself to God (be He exalted in power and might!).

The Third Compartment: to Peter. Know thou that times are adverse and contrary to thee. Guard thyself from their subtlety. Have faith in thy Lord, that He may help thee from their subtlety and mischief. If thou art questioned, reserve the answer. Wait till consolation come to thee from God (be He exalted in power and might!).

The Fourth Compartment: to Paul. Know that God (be He exalted [3] in power and might!) hath set over thee two angels; one of them to lead thee to good, and the other to guide thee to a blessing. Be not distressed: know that thou shalt receive abundantly in what thou has projected. Go whither thou wilt, know that God will prosper thee in all thy affairs.

The Fifth Compartment: Andrew. Know thou that if thou art turned from wickedness, thy affairs will be successful. As for thy question, leave it with God, that He may save thee as he saves the bird from the hawk; and He will accomplish thy desire. Trust in God and commit thyself to Him.

The Sixth Compartment: to James. O enquirer! do what thou hast projected; thou shalt succeed therein and shalt be victorious over thine enemies. Thou hast come from darkness to light: carry out what thou hast projected, because thou art aided, and happiness is in store for thee, with the help of the Almighty.

The Seventh Compartment: to John. Hard is what thou hast asked; thou askest a thing out of thy reach, and there is no good for thee in it. Turn thy heart from these thoughts, for it is better for thee than to strive for them. [4]

The Eighth Compartment: Philip. Thou hast committed thyself to God. Thou shalt be given thy desire; depart whithersoever thou art inclined. Improve thy thought; let thy project correspond with thy faithfulness, because thy desires are granted, and thou shalt rejoice in the bestowal of thy desire; and God will give thee manifold compensation for that which was lost from thee.

The Ninth Compartment: Mark. O enquirer! thy life-time will be long and secure for thee. Know that thou hast undertaken to do a thing not pleasing to God, and the door is closed beneath thee. Repent and fear God and thy affairs will be prosperous and thy desire granted.

The Tenth Compartment: Luke. The hope thou hopest will be fulfilled and thou shalt obtain thy desire. The doors are open before thee. Hasten with thy petition and praise God (His is the power and might!). Certain men are deceiving thee with their counsels, for thou art of mature age.

The Eleventh Compartment: to Thomas. Trust thyself not; for the matter is difficult for thee. Withdraw from thy intention: return to God (His is the power and might!) that the Almighty may grant thy petition. [5]

The Twelfth Compartment: to Matthew. O enquirer! thy matter will be easy and near unto thee, by the frequency of thy prayers and petitions to God. He will send an angel for thy help. Thou shalt triumph over thy adversaries. Thy life time will be peaceful, and thou shalt have good and success; and the right hand of the Holy One overshadows thee. Thou shalt obtain what thou seekest with joy. Beware of accepting counsel of any, for some envy thee and are hostile to thee, but thou shalt conquer them all by the help of the Exalted!

The Thirteenth Compartment: Simeon. O enquirer! whenever thou thinkest of this matter thy sorrow increases, and it estranges thee from the way of thy Lord. Return from thy intention, and do not continue in unbelief. Delay not, return from thy sin and trust God (His is the power and might!).

The Fourteenth Compartment: to Judas the Apostle. O enquirer! thy action is proper: do what thou hast undertaken, for it is made prosperous for thee: for thou shalt thereby obtain happiness by it, notwithstanding the craft of thy enemies. Trust in God and better thy deeds.

The Fifteenth Compartment: to Matthias the Apostle. O man! why art thou disquieted and why is thy life depressed? Why art thou importunate in thy request? Be patient. God will grant thee realisation, and shall console thy sorrow. Wait a little, till thou shalt get thy desire, and happiness will come to thee, and thy undertakings will be worthy of praise (God knows best!) therein. [6]

Of the Indicator of the Birth of the Year, namely, Eš Ša'ra El Yamáni. [7]

Know that this star rises on the nineteenth day of the month of July. The zodiacal sign in which is the moon on that day is the "Sign of the Birth of the Year."

If it be in *el-Hamal*[1] it indicates increase of rain; overflowing of springs; plentifulness of crops and oils; greatness of cold; diseases; evils and wars increase.

If it be in *eth Thaur:* abundance of rains, cold, evils, and scarcity.

If it be in *el-Jauza* it indicates scarcity of rain; scarcity and panic and turmoils.

If it be in *es Saratán* it indicates plentifulness of rains; rotting of crops; plentifulness of wines; perfection of fruit; outbreak of pestilence.

[1] See index of star-names prefixed to the translation.

If it be in *el-Asad* it indicates plentifulness of corn and wines ; scarcity of oils. Panic and tumults will surround people.

If it be in *es-Sunbulah* it indicates increase of rains and goodness of [8] fruits and harvest and fineness of cattle.

If it be in *el-Mîzân* it indicates tumults of kings ; scarcity of oils ; corruption in the crops ; increase of trouble.

If it be in *el-Ḳaus* it indicates abundance of rains ; goodness of crops ; scarcity of birds ; the heat will affect the crops ; locusts will appear ; joy will surround people.

If it be in *el-Jadi* it indicates the rising of the fame of kings and abundance of rains and crops and fertility in wine and oils.

If it be in *el-Dâli* it indicates corruption of crops on the fields and scarcity of oils.

If it be in *el-Ḥût*, increase of dew and rain ; destruction of birds ; occurrence of war in a great city ; outbreak of contentions.

Of the Birth of the Year.

If you wish to know the Sign of the Birth of the Year, calculate the day on which is Christmas Day with the total, and subtract 12, and you will understand which of the signs it is.[1]

Chapter of the Little Abuged with the twelves subtracted. [9]

ا	ب	ج	د	ه	و	ز	ح	ط	ى	ك	ل	م	ن	س	ع	ف	ص	ق	ر	ش	ت	ث
1	2	3	4	5	6	7	8	9	10	8	6	4	2	subtracted	10	8	6	4	8	subtracted	4	8

غ	ظ	ض	ذ	خ
4	subtracted	1	4	subtracted

This is the Great Abuged.

ا	ب	ج	د	ه	و	ز	ح	ط	ى	ك	ل	م	ن	س	ع	ف	ص	ق	ر	ش	ت
1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90	100	200	300	400

غ	ظ	ض	ذ	خ	ث
1000	900	800	700	600	500

[1] This is a literal translation of the Arabic, but the directions are not easy to follow.

Of the Birth of the Year in the Twelve Signs. [10]

If it commence with *el-Ḥamal* and *Mîrîḫ* and the ascending of the sun and descending of *Zuḥal*, this sign is dominant in Babylon and Persia and the East and Roumelia. It indicates violent contentions and wars and divisions and oppressions in the East; among the cattle and goats there will be shortage, and in crops likewise; it indicates excessive rains and oppression among the living to the end of June; the plains will be drier than the mountains; in the month of March the rains will be excessive; fruit and thieves increase in Syria. Hostility will fall on the land of Greece, and plundering in the Ḥijâz; pains of the eyes will increase, and catarrh and headache. Some of the great will die.

If it commence with *eth-Thawr* and *ez-Zuharah* it dominates the land of Africa and the north. Plague will increase among cattle; rains will increase; crops will be plentiful; there will be excessive heat in summer; there will be unity among the Arabs in the north; disease will increase among the inhabitants of the mountains; the crops will be abundant; a man of renown will die.

If it commence with *el-Jawza* and *'Uṭârid* the year will be rich in [11] plenty and cheapness, and especially in the lands of the North. There will be contentions in Egypt and in the land of Syria, and a city will be destroyed. There will be mortality among the aged. Fever will increase. The vineyards will be better than the corn. There will be mortality from the severity of cold, and a strong wind will blow for three days.

If it commence with *es-Saraṭân* and the Moon, and *Mîrîḫ* be descendant, it indicates greatness of prosperity in the crops and the fruits. Diseases will increase owing to smallpox. The rivers will overflow from excess of the snows: the land of the Greeks will be fertile, and there will be earthquakes in April and thunder-bolts will increase, and the summer will be good, and the olive-oil and wines will increase, and there will be rheumatic pain.

If it commence with *el-Asad* and the Sun, it dominates the East and Persia and the Soudan. There will increase turmoils and differences and cheapness in Syria and Africa. A great man will be killed. Violent winds will blow, and the rain will be excessive and the cold severe. The crops and the cotton will be plentiful. If *Mîrîḫ* be in *el-Asad* wars will increase in violence and blood will be shed. Robbers will increase.

If it commence with *el-Sunbulah* and *'Uṭârid* the year is blessed in [12] the crops and in fertility. There will be discords between the great and the literates. There will be dearness in Egypt. The rivers will overflow, and some villages will be destroyed. The rains and the snows and the frosts will be moderate: the rain will be out of its proper time.

If it commence with *el-Mîzân* and *Zuharah* the winds and the simoom will increase in strength, and there will be increase of eclipses and earthquakes, and the rain will be early and in abundance in March and April,

Blood will flow and contentions among the Arabs and in Syria will increase. Mischief will increase.

If it commence with *'Aḳrab* and *Mirîḫ* it dominates the West. It indicates plague and dearness in Palestine: strong thunder. The crops will be fertile, the rains abundant. Strangers will tread Syria under foot. Tremendous winds will blow in March and April: the honey and flax and olive oil and wine will rot. Diseases will increase among women and the aged and infants: sickness and ophthalmia will increase.

If it commence with *el-Ḳaws* and *el-Muštarî* it is blessed. There will [13] be cheapness and justice in the East. Plague among horses and camels. The fertility good: the rain moderate; autumn full of disease and mortality. Strong winds will blow in October and November: the rain will be out of its season. There will be tremblings and panic in the mountains.

If it commence with *el-Jadî* and *Zuḥal* [it indicates] in the South and in Palestine increase of mortality, and earthquakes, and eclipses. The cotton and olive oil will be scarce; grain will be plentiful. Cattle will die: crops and barley will be fine. It is an average year, neither good nor bad. Marriages will increase, as will rain, wine, and charcoal.

If it commence with *el-Dâlî* and *Zuḥal* the year is blessed on the plains and in the lands of Yaman and Roumelia. The Nile and the Tigris will be diminished. There will be dearness in Egypt and fertility in 'Irak. The snows and the rains will increase in it; the fruit will be plentiful. There will be contentions in Syria. Olive oil and cotton and flax will be scarce.

If it commence with *el-Ḥût* and *el-Muštarî* it is favourable in the land [14] of Syria. The crops will be good, and cheapness general. The streams will overflow their banks and contention will increase in the land of Syria and plague in the land of Greece. West winds will blow, and rain will fall at intervals, and there will be abundance of corn. Ophthalmia will increase. (God knows best!)

Of the Habitations of the Sun in the Eastern Months.

	In the Zodiacal Sign.		In the Zodiacal Sign.
June	Saraṭân.	December	Ḳaws.
July	Asad.	January	Jadi.
August	Thawr.	February	Dâli.
September	Sunbulah.	March	Ḥût.
October	Mîzân.	April	Ḥamal.
November	'Aḳrab.	May	Jawza.

(*To be continued.*)

THE GREEK FIRE IN THE CHURCH OF THE RESURRECTION, JERUSALEM.

By Archdeacon Dowling, Haifa.

A Greek Archbishop within the Patriarchate of Jerusalem asserts that the so-called "Holy Fire" was introduced into the Church of the Resurrection by the Crusaders. Of course this is a mistake.

Whatever its origin, it was considered rather a miracle of *light* than of *fire*, and was at first represented as a communication of the light of the world after temporary absence.

The Reverend George Williams[1] quotes Eusebius[2] in connection with a curious story of the pious Narcissus, the 30th Bishop of Jerusalem, and the 15th of the Gentile succession from the Apostles, A.D. 180–192, which may possibly throw light upon the subsequent introduction of the Easter Eve ceremony. It is as follows:—

> "About the great watch of the Passover, they say, that whilst the deacons were keeping the vigils, the oil failed them; upon which, all the people being very much dejected, Narcissus commanded the men that managed the lights to draw water from a neighbouring well, and to bring it to him. They having done it as soon as said, Narcissus prayed over the water, and then commanded them, in a firm faith in Christ, to pour it into the lamps. When they had also done this, contrary to all natural expectation, by an extraordinary and Divine influence, the nature of the water was changed into the quality of oil, and, by most of the brethren, a small quantity was preserved from that time until our own, as a specimen of the wonder then performed."

[1] *The Holy City*, 2nd edition, vol. i, John W. Parker, London, 1849, p. 226.
[2] *Ecclesiastical History*, Book V, ch. xii.

Robinson[1] states that the Monk Bernhard (A.D. 867)[2] is the first to mention the Greek Fire in Jerusalem, as follows:—

> "However, this should be told, that on Holy Saturday, *i.e.*, Easter Eve, the Office is begun early in this Church, and after the office is done, Kyrie Eleison is chanted, until, by the coming of an Angel, the light is kindled in the lamps that hung above the aforesaid sepulchre. The Patriarch gives this fire to the bishop, and to the rest of the people, that each may with it light up his own home."

The Librarian of St. Deiniol's Library, Hawarden (Rev. G. C. Joyce, B.D.), informs me that there is a reference to the Holy Fire in the *Historias of Rodulphus Glaber*, A.D., 1048,[3] also a long and detailed account in *The Pilgrimage of the Russian Abbot Daniel in the Holy Land*, A.D. 1106–7, annotated by Sir C. W. Wilson.[4]

In A.D. 1332, Sir John Maunderville[5] states:—

> "There is one lamp which hangs before the Sepulchre which burns bright, and on Good Friday it goes out of itself, and lights again by itself at the hour our LORD rose from the dead."

At what precise period the Latins ceased to take part in this Easter Eve ceremony is, apparently, unknown. However, according to Miss A. Goodrich-Freer,[6] as early as A.D. 1697, Maundrell writes:—

> "The Latins take a great deal of pains to expose this ceremony."

It is needless to add that the Orthodox Greek Patriarch does not claim to work a miracle. He merely considers the Fire, as "an emblem of the spread of the Evangel through the world." The Russian ecclesiastical authorities would willingly have it discontinued, and it is only tolerated for the sake of the Eastern Church pilgrims who come from far and near for this sole object.

[1] *Biblical Researches in Palestine*, 2nd edition, Murray, London, 1856, Vol. I, p. 393.

[2] "The Itinerary of Bernhard the Wise," *Palestine Pilgrim's Text Society*, London, 1893.

[3] *Liber* IV, Cap. vi, Migne, *Patr. Lat.*, Vol. 142, Col. 680.

[4] *Palestine Pilgrim's Text Society*. London, 1895.

[5] *The Voyages and Travels of Sir John Maunderville, Kt.*, Cassell and Co., Ltd., 1899, p. 53.

[6] *Inner Jerusalem*, Archibald Constable and Co., 1904, p. 110.

Can any of the readers of the *Quarterly Statement* throw additional light upon the mysterious origin of this Greek Fire?

In connection with the subject, the late Consul Finn[1] draws attention to the following interesting passage from Lambarde's *Topographical Dictionary*:—

> "I, myself, being a child, once was in Paule's Church at London, at a feast at Whitsontide, wheare the comyng down of the Holy Ghost was set forth by a white pigeon that was let to fly out of a hole that is yet to be seen in the midst of the roof of the great ile, and by a long censer, which, descending out to the same place almost to the very ground, was swinged up and down at such a length, that it reached, at one swepe almost to the west gate of the church, and with the other to the queer stairs of the same, breathing out over the whole church and companie a most pleasant perfume of such swete thyngs as burned therein."

THE PRESENT STATE OF THE JERUSALEM TO NÂBLUS ROAD.

By J. Cropper, Esq., M.A., M.D.

There are many surmises as to the date at which it will be possible to drive right through by carriage from Jerusalem to Nâblus, but our readers will be able to judge of this for themselves on knowing how the work stands at present.

The road has, of course, been made and in use for some years from Jerusalem to the hill above Khan Lubban, two or three miles beyond Sinjil, and also from Nâblus to beyond Hawâra, a distance of two hours' riding, though, owing to various causes, this latter is in very rough condition, principally from want of use.

The distance of two hours' riding, say eight miles, from beyond Hawâra to Khan Lubban has been thrown up and levelled, the

[1] *Stirring Times, or Records from Jerusalem Consular Chronicles* of 1853 to 1856. London, 1878, Vol. II, p. 462.

gradients being very good. A detour has been made round the first steep hill, and then the road sweeps to the east and back again to join the old bridle path, having crossed what is known as the Brook Mochmur on the P.E.F. map by a substantial stone bridge; thence following the old road through a narrow wady the plain is reached to Khan Lubban; the new road following the old track.

Throughout this portion, the two remaining bridges are in course of construction, and gangs of women were busily at work collecting stones from the surrounding fields, though where these are large a good deal of time must be taken in breaking them up.

In no case has the road metal been put on the road or the binding material "How-war" been collected.

Carriages occasionally drive through to the Khan from Nâblus over the half-finished road, but this is very heavy work in wet weather.

There remains now only the steep hill above the Khan, and this is being rapidly made by blasting where necessary and by earth embankments, the road winding three or four times in a serpentine manner down the face of the hill.

One of the "gangers" in charge of the work assured me that the whole of the road would be finished in four months time, *i.e.*, in May, but unless much more labour is employed it can hardly be open for traffic before the next travellers' season in December of this year. The weather was very bad up to the end of January, and this no doubt has delayed the work.

The Jaffa to Nâblus road is now open, but a considerable portion of it has evidently been under water during the recent rains and was being rolled—having assumed a pudding-like condition. The road metal is deficient in amount and the bottom boggy: this applies to the "section" near el Ferochiât: the Jaffa end of the road is in far better condition than formerly.

It is definitely announced that the railway is to be made from Jerusalem to Nâblus and so through to Jenîn to join the Haj railway at 'Afûleh.

TWO GREEK INSCRIPTIONS FROM KHURBET ḤARRAWI.

By Dr. E. W. G. Masterman.

One of the most remarkable hills in Galilee is that isolated, steep, and very conspicuous one which stands immediately over *'Ain el Melāḥah*. It is mentioned in the *Memoirs* and marked in the P.E.F. Map as *Khurbet Ḥarrah* but *Ḥarrāwi* appears to be the name by which it is universally known to-day, and Guérin speaks of it as *Tell el Harrawi*. The hill is striking whether viewed from the mountains around Safed in the south or from the higher ground round *Merj 'Ayûn* in the north; it stands out boldly and conspicuously when Western Palestine is surveyed from the Jaulan or the slopes of Hermon; it dominates the scene on the whole ride along the *Ḥuleh* valley on the road to *Banias*. Even from the top of the *Jebal Jermak* it is, though from there so far below, a striking object. There is no clear proof that it is the site of Hazor, but it is manifestly the most likely site for an ancient fortified city near the *Ḥuleh*, and answers better than any other suggested site to the description of Josephus,[1] and the remains on the surface are extensive and some at least of the walls are probably ancient. There is much early pottery about. The neighbouring *Kh. Khureibeh*, which we passed on the road to *Deishûn*, has no claim to be Hazor compared with this place. It is not, however, correct to say, as is stated in the *Ency. Bib.* (article "Hazor"), that "no ruins have yet been discovered there." There are extensive ruins but composed of small stones: there are no traces of important buildings.

On September 21st I made a visit to this site, riding from Safed *viâ* the mediaeval Arab site of *Khurbet Benît* (with a magnificent view), the Roman site *Khurbet Marûs*, and the Hebro-Roman *Khurbet Keisiûn*. With considerable stops at these places we took seven hours on the way. We returned by the more direct inland way *viâ Deishûn*, *'Alma*, and *'Ain ez Zeitun*, in four and a half hours.

[1] *Ant.*, V, 5, § 1.

The ascent of the *Tell Ḥarrāwi* is exceedingly steep on all sides. We ascended along the southern aspect by a rough path. Where the path comes out on the *tell*—the lowest part of the summit—is a large platform made of massive stones and some dry cisterns. A little more to the east are remains of what may have been a city or fortress wall. About the centre of the summit is a ruin, on the southern side of which stand two much weather-worn door-posts. Immediately inside this someone has dug a hole in the ground and has, from here apparently, extracted a large stone which lies on the ground in the neighbourhood. This stone must have been entirely buried and protected since the moment when it fell from its original position, for it is as fresh and sharply-cut as if it had been made this year. The stone is 4 feet × 1 foot 11 inches and 7 inches thick,

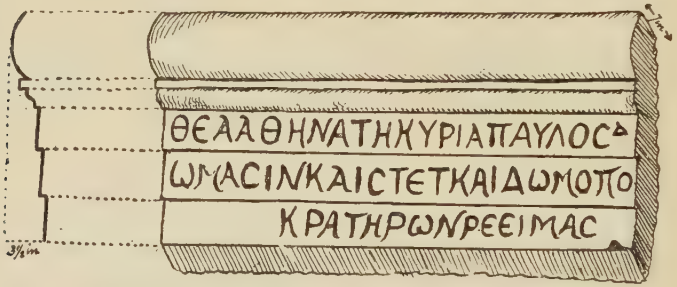


Fig. 1.—Inscriptions on Lintel of Temple Door at Khurbet Ḥarrawi.

and from its general shape clearly must have been the lintel above a door: the letters of the inscription were sharp, distinct, and as if new. It appears clear, from the wording of the inscription, that the ruin from which this was rescued was a sanctuary of Athena and, if so, it is an illustration of how dangerous it is to judge of the extreme antiquity of buildings from the worn conditions of their stones (fig. 1). The limestone of Palestine weathers fast—some kinds extremely so—and it is quite impossible to date anything from this alone. The stones of this building are so rough and worn that they appear to have never been hewn; yet one of them, unearthed a few feet down, shows that these very stones were once most carefully chiselled. Close to this old sanctuary is a modern but now ruined stable built of old materials, and more to the west—on the summit of the *tell*—are two modern

buildings fast dropping to pieces. One has the appearance of having been a kind of kiosk, the other is a ruined house with a central court and six rooms—three on each side. It is built chiefly of old materials. I was informed by my companion, Mr. Nassâr of Safed, that some people took up their abode on this hill a few years ago but left it hurriedly soon after the occurrence of a murder in the neighbourhood.

Built in, upside down, over the door of one of the northern rooms, I found a fragment of inscribed stone (fig. 2). As it was but an hour or so before sunset, and I was informed that the neighbourhood was very insecure, I could not stay to give this the attention

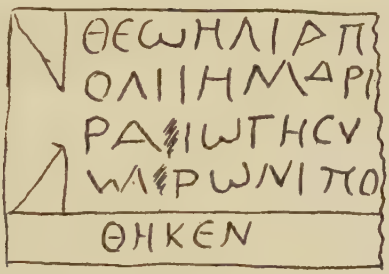


Fig. 2.—Fragment of Inscribed Stone at Khurbet Ḥarrawi.

I should have liked, and an attempt to take a make-shift squeeze (with ordinary paper and cold tea!) having been spoiled by the stormy west wind, I had to be content with making as careful a copy as possible and taking a rough rubbing. These I send. Mr. Macalister has made a few emendations suggested by the rubbing.[1]

[1] [No. 1 commences, as Canon Hicks kindly points out, *θεᾷ Ἀθήνᾳ τῇ κυρίᾳ Παῦλος . . . [ἰδίοις ἀναλ]ώμασιν.* For no. 2 Mr. Macalister suggests:—

ΘΕΩΗΛΙΑΠ | ΟΛΥΡΗΜΑΡΙ | ΡΑΠ$\overset{?}{\Omega}\overset{?}{\Theta}$ΤΗCV$\overset{?}{}$ |
ΜΑΡΩΝΥΠΟ |

The last line is clearly (*ἀνέ*)*θηκεν.*]

METEOROLOGICAL OBSERVATIONS TAKEN IN JERUSALEM.

By Adolph Datzi, Jerusalem.

The following table shows the result of meteorological observations taken in 1907, in Jerusalem, about 2,500 feet above the level of the Mediterranean Sea. They were made at 9 A.M., with the barometer corrected for index error, not for temperature or elevation. The observations for 1906 are appended for comparison :—

Monthly Means, 1907.	Barometer.	Att.* Ther.	Thermometers.				Rain.		Winds.							
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
January	27·550	50	50·3	40	46·3	44·2	7·270	14	0	13	0	3	0	7	0	8
February	27·378	48	52·8	40·6	47·6	45·8	3·935	11	0	3	0	4	0	11	2	8
March	27·407	46	59·8	40·7	50·3	46·7	4·595	12	1	1	3	1	1	7	6	11
April	27·401	57	69·3	50·3	61·2	53·4	1·145	7	0	1	6	4	2	5	2	10
May	27·449	69	77·8	59	72·4	62·3	...	...	5	2	3	5	0	3	5	8
June	27·436	73	80·9	60·9	74·1	68·7	...	...	6	2	2	1	0	0	4	15
July	27·399	76	83·8	66·3	78·4	67·4	...	...	5	2	0	0	0	2	7	15
August	27·416	77	83·1	66	76·8	65·5	...	...	6	1	0	1	0	5	4	14
September ...	27·494	72	78·9	60·4	71·7	63·8	...	...	4	0	0	0	3	8	2	13
October	27·529	68	76	60·1	70·4	61·5	0·200	3	2	6	0	1	2	3	1	16
November ...	27·514	60	61	49	55·8	52·8	5·070	10	1	6	1	3	0	13	2	4
December ...	27·536	55	55·9	44·6	51·2	48·3	5·000	8	0	10	6	1	1	7	3	3
Year	27·459	62	69·1	53·1	63·	56·7	27·215	65	30	47	21	24	9	71	38	125

* *i.e.*, the thermometer attached to the barometer itself.

Monthly Means. 1906.	Barometer.	Att.* Ther.	Thermometers.				Rain.		Winds.							
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.	N.	N.E	E.	S.E.	S.	S.W.	W.	N.W.
January	27·559	46	51·8	39·5	48·3	44·7	7·020	14	2	0	11	1	0	6	3	8
February	27·429	49	55·1	42	51·3	46·6	7·950	13	0	2	2	4	1	12	3	4
March	27·495	52	61·3	44·9	56·3	50·8	2·700	7	1	1	3	5	0	6	5	10
April	27·496	59	69·5	50·3	65·1	55·5	5·710	7	3	4	2	9	0	3	4	5
May	27·464	66	75·2	54·3	69·2	58·7	0·990	5	1	4	2	5	5	3	5	6
June	27·480	73	84·4	62	80·3	66·5	...	...	5	3	0	0	0	2	3	17
July	27·417	76	84·8	65·1	81·7	68·4	...	...	1	0	0	0	0	2	9	19
August	27·449	77	85·9	65·8	83·2	67·6	...	...	6	0	0	1	0	0	1	23
September ...	27·511	73	82·7	62·2	78·9	65·6	...	...	2	1	1	0	0	0	3	23
October	27·574	69	77·2	60·5	72·4	61·9	1·080	3	2	5	3	1	1	2	5	12
November ...	27·588	63	66·1	52·6	62·3	56·7	0·750	3	4	4	9	2	0	2	1	8
December ...	27·548	56	60·1	47·7	56·3	51·5	1·940	7	1	4	5	1	0	4	8	8
Year	27·500	63	71·1	53·9	67·1	57·8	28·140	59	28	28	38	29	7	42	50	143

* *i.e.*, the thermometer attached to the barometer itself.

DEAD SEA OBSERVATIONS.

By Dr. E. W. G. Masterman.

Autumn Visit to 'Ain Feshkhah, 1907.

As I was anxious to spend the night on the shores of the Dead Sea, I left Jerusalem at 10.45 a.m., November 15th, accompanied by Mr. Hornstein. We rode by the usual carriage route and reached the shore of the sea after sunset. The sky was cloudy, the air still and sultry: wind, such as there was, from E. At the spot which we selected to stay the night, there are several wooden buildings, and a Greek is now building a three-roomed house of wood and mud; he intends to open one room as a shop. The sea was very calm; temperature of the water at 9 p.m. 77° F., falling at midnight to 73·4° F., that of the air (at 9 p.m.) 69·8° F., falling at midnight to 60·8°. At the latter time there was a cool north wind blowing. We left at 9 a.m. the next morning. Before leaving, *I was astonished to observe several dozen little fish*,[1] *about an inch long on the average, actively swimming in the sea* about half a foot from the edge of the water. They were swimming in about four to six inches of water but when disturbed darted into a somewhat greater depth. My companion, Mr. Hornstein, and a native boatman on the shore also saw this phenomenon and we were all equally surprised.[2] In the *Quarterly Statement*, 1904, p. 92, I refer to finding similar little fish in the Dead Sea close to *'Ain Feshkhah*, but there the water is kept diluted by the constant streams from the springs along the shore; here, however, there are no fresh springs, it is far from the Jordan and the water is intensely salt. The fish we saw were active and appeared thoroughly at home in the dense water. They probably found their way into the sea from some of the salt pools along the shore which abound in similar fish; there are, however, no such pools in the immediate neighbourhood, and it is certainly probable that these fish had been at least several hours in the sea. It is probable they may find some nourishment in the water here because of the inhabitants—human and animal (dogs and fowls)—on the shore. The observation that under favourable conditions fishes can find their way along the northern

[1] They were almost certainly *Cyprinodon dispar*, the little fish so common in the brackish pools.

[2] For the result of an analysis of the water in which they were found, see above, p. 85. I have since learned that others have made the same observation. In one of the Jericho hotels there is a declaration jointly signed by over a dozen tourists who saw fish swimming actively at this spot.

edge of the sea will account for the fact that while fish abound in the springs and many of the pools between the Jordan and *Râs Feshkhah*, they are absent from the waters of the springs further south, *e.g. Wady Sudeir*, *'Ain Jidy*, and *Wady Mubaghik*.

We rode to *'Ain Feshkhah* parallel with the shore, partly on the shingle and partly on the "raised beach" inland. There was evidence on all sides of recent heavy rain and all the valley bottoms were damp. In the soft soil were recent footprints of wild boar, hyaenas, and jackals (or foxes). The many tamarisk bushes which here cover the ground have their roots surrounded by the burrows of jerboa. I saw one of these pretty little beasts retreating to his lair. It took us two hours to reach the spring. The reeds in the oasis were unusually flourishing, the dark green leaves contrasting markedly with the grey-brown "blossoms." I never observed the reeds so fine nor so extensive. We saw not a soul in the oasis, and the Sultan's cattle have apparently been long absent. The path to the "Observation place" was almost blocked with reeds in places, and I found further evidence of the deserted condition of the district when I suddenly came upon over a dozen coneys on the rocks. I have never seen these timid little animals except in the very early morning, or evening, but on this occasion they did not even, as usual, run away at once but four of them stood looking at me with marked curiosity for some minutes. Had I had a gun I could easily have shot a couple which quaintly sat side by side on a rock staring at me, not 20 yards away.

The State of the Level of the Sea.—At the "Observation rock" (11.30 a.m.) I found there was a *fall* in level of 20 inches since last spring. There was a fairly strong S.E. breeze and moderate waves breaking on the shore which made exactitude of observation difficult. At the pool, where measurement is easier, I found a fall of 18 inches. The *temperature* of the air at 1.30 p.m. was 81·4° F.; that of the water of the spring 80·6° F. My barometer was unfortunately out of order.

At the pool we found some wild duck, and numbers of partridges were seen and heard in the neighbouring hills and valleys.

As we left the district at 1.45 p.m. we could see heavy thunder-clouds to the N.E. over *es-Salt* and heavy rain was falling there and to the E. of Jericho. We skirted the foothills of the western mountains, joining the Jericho road just where it commences to ascend, at 5 p.m., and reached Jerusalem at 10.40 p.m. We encountered very little rain but there had been heavy rain in Jerusalem, and much more fell during the succeeding week.

NOTES AND QUERIES.

1. *The Gezer Zodiacal Signs.*—In elucidation of this cylinder-impress, it may be interesting to note more fully the results of M. De Morgan's discovery of new *Kuduru* (or "protection") stones at Susa (*Delegation en Perse*, Vol. I, 1900, pp. 165–182). These present zodiacal signs, on Kassite monuments of the eleventh century B.C., and the meaning of the signs is noted in the accompanying texts. There are many of our zodiacal signs among them, but it is notable that there are more than twelve signs, and also that the order of their occurrence is not the same in every case. There are twelve of these stones in all.

No. 1 is important because the names of the gods are actually written in cuneiform on some emblems, which accompany a figure of the goddess *Gula*. These include: (1) a spear for *Marduk;* (2) *Gula* herself; (3) the sun; (4) the crescent; (5) a star (probably *Istar* as the planet Venus); (6) a ram's head with the name of *Ea* (this has Capricornus beside it); (7) possibly a wolf's head for *Zagaga* (a Kassite god); (8) possibly a mast and sail for *Sukamuna* (also Kassite); (9) a lamp for *Nebo;* (10) a serpent, which seems to have been the emblem of the year; (11) a kind of crocodile (rather like one emblem at Gezer), otherwise known to represent *Anu;* (12) a trident (probably the sign of Nergal); (13) a lion's head with the title *An Nu-ga* (the infernal god); (14) a scorpion (as at Gezer); (15) a bird (as at Gezer also). The order is that in which they are numbered in the Memoir, but not that of occurrence on the stone.

No. 2. A stone of about 1028 B.C., referring to a grant by *Nazi-maruttas* about 1360 B.C. It is inscribed and carved on all four sides, and has also a figure of Gula accompanied by her dog, besides the signs of twelve gods. The long Semitic text (Vol. II, pp. 86–92) contains this instructive passage (Col. iii, lines 15–24) in a curse on those who dispute the rights of the owner of a field in which the stone stood:—

> *Ilani rabuti mala ina eli narie-anni sum-sunu zakru, kakka-sunu kullumu, u subatum-sunu uddaa, arrat limutti liru-su.*
>
> "May the many gods, as many as on this stone have their names recorded, their arms shown, their shrines represented, curse him with the curse of evil."

The text then enumerates the names and signs, which include sun, crescent, star, scorpion, lamp, spear, trident, lion, tree, bull, etc. The meaning of the words which describe the signs is not always certain, but the bull belongs to "Adar son of Rimmon," the lighted lamp to Nebo, and others as before on No. 1.

No. 3. A stone of *Melisikhu* (about 1040 B.C.), with a very long text (Vol. II, pp. 99–111). It is the finest specimen of all, with four rows of double symbols representing seventeen gods, apparently Sinu, Istaru, Samsu, Anu, Ea (the ram's head and Capricorn), Belu, Rimunu, Zagaga, Nuga, Marduk, Gula, Nabu, Sit-lam-ta-uddu ("Sit rising from the plough"), and four others. Sit's signs are a bird standing on a plough, and a bird on a pillar. Beneath these is the serpent for the year, flanked by two signs (probably for the spring and autumn equinoxes), viz., a graduated arc and a scorpion.

The other examples give the same signs in various order, and in No. 11 (p. 179) the kind of ladder and vase occur together as at Gezer (the balance is a late zodiacal sign, and does not occur): the variants show clearly that these signs distinguished certain gods. At Gezer the signs—though some became zodiacal in a later age—seem clearly to be of the same character, and to represent eleven or twelve gods, with the serpent for the year. The chief peculiarity is the fish (probably for Ea, the ocean god), which does not occur on the *Kuduru* stones here described.

C. R. Conder.

2. *St. Paul at Corinth.*—As the inscription found at Delphi containing a letter of the Emperor Claudius, which decides, in my opinion, the date of A.D. 52 for the major part of St. Paul's first residence at Corinth, is of considerable importance for the chronology of the Apostle's career, it may be desirable to furnish some further particulars as to the information concerning the date derivable from the text. The letter, in fact, possesses a definite date, because it distinctly refers to the year as being that in which occurred the 26th "*acclamatio imperatoria*" of the Emperor. The most erudite scholars upon the chronology of the earlier Emperors, such as M. Cagnat, and the Pauly-Wissowa Encyclopaedia, have in their most recent and final determination of the dates for the reign of Claudius, stated that the 26th imperial salutation occupied the year A.D. 52. Their chief authority for this is the very completely

dated inscription of the Arcus of the Aquae Claudiae at Rome, which gives the figures of the Tribunician Power, the Consulate, and the Acclamatio of Claudius for the year. From the evidence of the inscriptions then it is certain that the Delphi letter of Claudius is to be placed in A.D. 52.

Can the same document be considered to prove that this was also the year of Gallio's proconsulate of Achaia? The Emperor therein styles him proconsul and friend, the latter title being one given by the Emperors in their correspondence to proconsuls when in office; and nothing in the text at Delphi indicates that it alludes to acts of Gallio in time past: but apparently it relates to present events. Moreover, we know that other historical evidence has decided that Gallio's proconsulship took place either in A.D. 52 or 53.

If we now conclude that Gallio was proconsul in A.D. 52, we can, from information in the Acts, approximate the period of Paul's sojourn at Corinth. If the whole eighteen months first there alluded to was previous to the appearance before Gallio, and that took place immediately upon his becoming proconsul in A.D. 52, then Paul arrived in the autumn of A.D. 50; and as he tarried a good while after his indictment, but left just in time to reach Jerusalem for the Feast in March, it is probable he left Corinth early in A.D. 53.[1]

JOSEPH OFFORD.

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3. *The Hebrew Graffito in the Golden Gate.*—I send a facsimile of this inscription noticed by Mr. Hanauer (see *Q.S.*, p. 7). It is a name:—

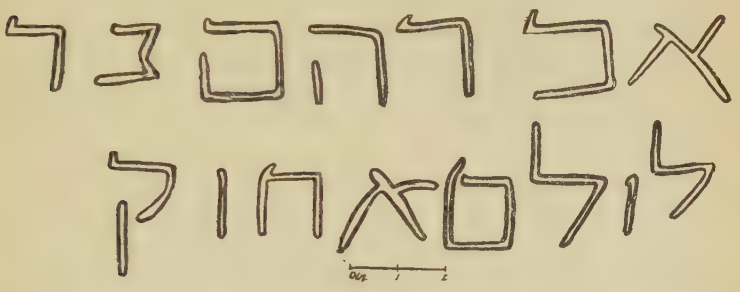
אברהם בר
לולמאחוק

The first line is easy enough, and presumably reference to a mediaeval Jewish onomasticon would elucidate the second, which is new to me.

The use of בר, and the peculiar form of the ב in that word, is to be noticed. Otherwise the principal interest of the inscription is its position, inside the Haram. There are a few quite modern

[1] For the new inscription see M. E. Bourguet, *De Rebus Delphicis Imperatoriae aetatis capitula duo* (Montpelier, 1905).

scribbles with pencil, in Hebrew, also in the Golden Gate; but as the orthodox Jews are well known to avoid entering the sacred enclosure as a rule, a Hebrew graffito within its walls is not unworthy of notice. The inscription is by no means modern, the forms of the מ and ח being of a rather early form of the square Hebrew character.



The facsimile sent has been traced from a rubbing, checked by a careful pencil copy.

R. A. S. M.

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4. *Fellah Superstitions.*—Two events illustrating the fellah beliefs in charms and in the powers of the local saints have recently taken place in Abû Shûsheh.

(1) A gun belonging to one of the servants of Mr. Murad, administrator of the estate of the Bergheim family here, was stolen. By a judicial enquiry it was found that the thief must be one of twelve persons who were about at the time of the theft, but there was no evidence to show which of the twelve was the culprit. The local sheikhs offered to make the twelve go to the shrine of Sheikh Selmân, a powerful wely, whose white domed tomb is conspicuous on a hill east of El-Kubâb. The interference of this saint is seldom sought, except in the most serious cases, such as murder. The proposal was, that each of the twelve in turn should enter the building, and with his hand on the Sheikh's tomb, take an oath of compurgation.

The proposal was excellent, but a cause of grave anxiety to the twelve concerned, who spent an entire morning discussing the following question. If the guilty man be among us, he may take the oath with the rest; and if so, the Sheikh will assuredly make

some signal demonstration of his displeasure. It would be no wonder were he to strike him dead! If so, the government will assuredly hear of it, and will either believe, or pretend to believe, that we have murdered him, and then there will be no rest or peace for us or for the village for years. The end of the discussion was, that it was too risky to adventure the oath of compurgation, and the twelve decided to raise among themselves the price of the gun rather than face the dead Sheikh's resentment.

(2) A donkey, belonging to the Imperial Commissioner of the Excavations, fell ill, and after some days it was decided to send it to a horse-doctor in Ramleh, as no one in or about the village knew what was the matter with it. The malady, however, whatever it was, had gone too far, and the unfortunate creature succeeded only in reaching the bottom of the hill, where it fell, and, about an hour before sunset, died—in full view of the excavations in progress.

As soon as the setting of the sun gave the signal for the close of the day's work, the villagers ran home to their sheikhs, that they might make for them a spell to prevent wild beasts devouring the carcase of the donkey—the idea being to take the first opportunity of quietly removing its hide for sale to a tanner. The spell consisted in binding a thread round a clasp-knife, and repeating over it the following words from the eighty-first sûra of the Koran (I quote from Sale's translation): "When the sun shall be folded up; and "when the stars shall fall; and when the mountains shall be made "to pass away; and when the camels ten months gone with young "shall be neglected; and when the wild beasts shall be gathered "together"—the last clause repeated four times. So long as the thread remains intact on the knife, no wild beast dare touch the carcase. This spell, be it noted, was performed in the village, not over the remains of the donkey. Unfortunately—whether because a word was mispronounced, or because mice ate the string, or because the jackals and hyaenas[1] actually succeeded in forestalling the spell, Allah knows!—the bones were found picked clean the following morning.

But that the spell, when properly performed, is efficacious, is proved by the following incident:—Some time ago a shepherd was tending his flock, and towards evening one of the she-goats gave

[1] There are a number of hyaenas about Abû Shûsheh just at present. A child belonging to a Bedawin encampment temporarily settled here was seized and devoured by one a few weeks ago.

birth to two kids which, however, were dead. The shepherd, as it happened, had not got his two dogs with him, which he regretted, as he would prefer that they, rather than the jackals, should have the dead kids to eat. So he made the spell, and returning the following morning with the dogs, he found the carcases just as he had left them the night before. The dogs were set on them, but it was as though some hand were grasping their muzzles—they could not open their mouths to eat, till the shepherd cut the thread bound round the clasp-knife; whereupon they promptly fell on the dead kids and tore them in pieces without a moment's delay.

R. A. S. M.

5. *Palestine Folklore in Spain.*—In Mr. Hanauer's recently published collection of Palestinian Folklore is a tale (p. 263) of a dog which was buried by his master with the respect due to a true believer; for which the master "would have been severely dealt with had he not told the judge that the animal had proved his sagacity by leaving a large legacy to his worship." The same story was recovered by Yusif, in this form: the dog had saved a she-goat alive from a leopard; and died, after the subsequent descendants of the she-goat numbered twenty. When the owner was accused of his crime he told the judge that of the twenty kids, ten were consecrated to the poor, the other ten to his worship, who thereupon asked why notice had not been given him in time, that he might come to officiate at the funeral.

Mr. Hanauer (p. 317) has observed that the incident is to be found in *Gil Blas*. This has reminded me of another curious coincidence that I have never seen called to notice, though it ought to be fairly well known. The "Dome of the Chain," beside the Dome of the Rock (the so-called "Mosque of Omar") is named, according to tradition, from a chain which in Solomon's time hung down from heaven, and which was always drawn up out of the reach of a false swearer. This most valuable adjunct to the judgment-hall was confiscated (to the irreparable loss of posterity) when a certain debtor swore that he had paid his creditor, and verified his oath by succeeding in grasping the chain—the money being actually concealed in the debtor's staff, which he gave to the creditor to hold for him, in order that his hands might be free for

the ordeal, and which he of course recovered after the successful issue of the test.

In *Don Quixote*, Part II, Chap. xlv, a precisely similar incident will be found. The debtor and creditor come before Sancho Panza, established for the while in his long-desired governorship. The same juggle is performed with the staff: but the astute Sancho guesses the trick, breaks the staff, and out falls the money. Whereupon "all were amazed, *and held their governor for a new Solomon.*"

Now, is this a mere coincidence, or did Cervantes pick up and utilize a bit of the floating traditions of the Arabic-speaking world, through someone in touch with the Moorish element in the population of Spain?

R. A. S. M.

6. *Sacrificial Cakes.*—The passages which illustrate the sacrificial cake (p. 75 of the January *Quarterly Statement*) are Jeremiah vii, 18, and xliv, 19. The second is a specially interesting passage, being in defence of idolatrous practices by the Jews in exile. "Cakes to worship her," verse 19, is literally, "cakes *to make an image of her*"—the word for "cakes" is Babylonian (Prof. Driver). "The queen of heaven" is the moon goddess, the receptive power in nature; the circles in the figures on p. 75 may represent moons. It is curious that there is a custom in the North of England to make dough cakes representing a woman and child—no doubt the Virgin and Child—at Christmas, an old Roman Catholic custom quite unconsciously preserved, and that, too, probably derived from pagan sources.[1]

Rev. A. Carr.

[1] [See further on this subject the *Encyclopaedia Biblica*, col. 460 (§ 2), and col. 3992.]

THE

PALESTINE EXPLORATION FUND.

The Annual General Meeting of the Palestine Exploration Fund was held on June 17th at the Royal Institution, the Very Reverend the Dean of Westminster presiding. There was a good attendance, and the greatest interest was taken in the description by Prof. Alexander Macalister of the more recent discoveries at Gezer. A complete account of the proceedings is given with this number (pp. 181–199), and the special attention of subscribers is drawn to the remarks by the speakers on the necessity of making the excavation of the site as complete as possible. Gezer is offering unique opportunites, and it is extremely desirable that the most should be made of the months before the permit expires. (For the special donations to the Gezer fund, *see* below, p. 177.)

The Eighteenth Quarterly Report on the Excavation of Gezer records several interesting discoveries, the most curious of which, perhaps, is the cave with drawings of animals. They are the most primitive specimens of art as yet found, and resemble the well-known sketches attributed to palæolithic man elsewhere. A striking example of foundation sacrifice is characterized by the skeleton of a youth who had been cut in two, like the girl found in a cistern on the Eastern Hill. The precise motive is still a mystery, and though one recalls the prophets who were sawn asunder (Hebrews xi, 37), anthropological study has as yet failed to explain the grim rite. Of great interest, also, is the discovery of a new type of interment which Mr. Macalister is inclined to date at the commencement of Aegean influence. Another seal, impressed with emblems, some of them admitting of a zodiacal interpretation, is a welcome

addition to the evidence for early belief, and may tend to decide the question whether the signs are essentially zodiacal or not. A fine specimen of an incense burner, a remarkable stone which apparently bears a huge hieroglyphic sign, and a number of smaller objects are also described. Lack of space compels us to hold over some of the drawings sent by Mr. Macalister, and also his description of a very complete olive-press, and of a hoard of ornaments "evidently the jewellery of some Gezerite lady of the time of the XIIth dynasty, or of the Hyksos."

It is with the deepest regret that we have to announce the death, on April 27th, of the young and accomplished wife of our valued correspondent Dr. E. W. Gurney Masterman. Mrs. Masterman was the grand-daughter of the late Right Rev. Bishop Gobat, whose memory is still affectionately venerated by the older inhabitants of Jerusalem. She was born at Nazareth in 1873, married in 1894, and leaves five young children. Dr. Masterman has the sincerest sympathy of every member of the Committee, and of all who had the privilege of meeting him and his wife on the occasion of their visit to this country a few years ago.

We learn from *Home Notes for Jerusalem* that a brass tablet in memory of Mr. John Dickson, the late Consul, has now been placed in Christ Church. The inscription records that "This tablet is erected by the British residents in Jerusalem and other friends, as an abiding witness to his unfailing courtesy, his devotion to duty, and his upright Christian life."

The Rev. J. E. Hanauer, whose departure for Damascus has already been announced, was presented with a purse and testimonial on behalf of some ninety friends in Jerusalem. We share with these the hope that (to quote from the address) "He may find his position in Damascus a new opportunity of usefulness . . . . in those questions of archaeology and folk-lore in which he affords so much pleasure and instruction to his friends, and to all who read the accounts which from time to time come from his pen."

The new Dispensary attached to the Hospital at Jerusalem, and the work outside the city, was opened on February 15th, and a

further improvement has been made in the work inside by turning the doctor's house into consulting, dressing, and waiting rooms.

The hospital at Gaza has been opened. The ceremony was performed by the Bishop in the presence of a number of influential supporters, including H.B.M. Consular Agent. The building is substantially built of stone, and contains forty-six beds, the majority of which are supported by friends in Great Britain, who have also assisted in equipping the operating-room, etc.

Jerusalem has recently suffered from one of the biggest fires within living memory. It originated in a *café chantant* outside the Jaffa Gate, and destroyed a row of four or five houses and shops up to and including the Turkish Post and Telegraph Office. Several other important buildings narrowly escaped.

The Twentieth Report of the British Ophthalmic Hospital at Jerusalem has been received. For 1907 the number of consultations in the out-patient department show an increase of nearly 5,000. A scheme is proposed for enlarging the present accommodation for out-patients at an estimated cost of from £60 to £70. From the statistics for the last three years the number of in-patients admitted totals 862 in 1905, 942 in 1906, and 988 in 1907; out-patients, new cases, 8,157 in 1905, 8,528 in 1906, and 9,289 in 1907. The figures for out-patients' consultations are respectively 33,355, 33,458, and 38,369, and for operations 1,387, 1,542, and 1,670. Notwithstanding the increased work, the hospital is managed with the strictest economy, the monthly expenditure showing an average of only £31 10*s.* 2*d.* An earnest appeal is made for subscriptions, since, though the work—and therefore the good which is being done—is constantly increasing, there is no increase of subscriptions, and the deficit during the last four years has averaged nearly £650.

Mr. Herbert E. Clark, to whose collection of flint implements we drew attention in the *Quarterly Statement*, p. 85, sends an interesting description of a passing visit to Ammân. The deplorable and rapid destruction of old remains was forcibly illustrated by his discovery of the use to which the modern inhabitants put the stones

Portions of columns, large well-dressed stones, marble, granite, and variegated limestone had been taken from an adjacent hill where was the ruin of an ancient place of worship fronting a terrace. He sends us a copy of a very fragmentary Greek inscription which he found but unfortunately it is too incomplete and worn to be deciphered. (The copy is preserved at the Office.) It appears that the place was once a church, and probably later became a Mohammedan mosque. The position and the existence of a subterranean cave suggest that the site had been the scene of worship from very early times.

Dr. D. W. Torrance writes from Tiberias: "The Franciscans continue excavating at 'Tell Hum.' The Italian colony is working on the hill-slopes between Tell Hum and Tabigah, they have built a few nice stone houses, and are going to irrigate the land by means of a powerful oil-motor pump and reservoirs. The Germans at Tabigah have ordered a wind-motor for irrigation, so we are on the eve of improvement. I wonder if the natives will follow suit. The German Catholics are cultivating their portion of the Plain of Gennesareth as it has probably never been wrought for centuries. There has been a severe epidemic of smallpox in Galilee. Tiberias is now free. I trust we are not to have a visit of cholera which has attacked the Haj pilgrims. Our medical mission work is enormous. Surgical cases come from all over the Hauran and Palestine, as well as from the region around the lake. Nearly a score of patients needing serious surgical operations have turned up at each clinique during the past month. We are operating every second day; our hospital accommodation is insufficient. A shelter must be built. About 2,000 attendances are registered at the out-patient department monthly."

Dr. Masterman writes that last December Mr. Hornstein visited the place where the fish were observed in the Dead Sea and saw many moving about at the spot. He has no doubt that the fish is the *Cyprinodon Dispar* described by Tristram, *Fauna and Flora*, p. 170.

In reference to the point raised by Prof. C. S. Myers in the last *Quarterly Statement*, p. 88, as to the number of pellets in the rosary, Mr. Macalister writes that the number 99, corresponding to the 99 names of the Deity, is usual: "But there is another variety of

rosary less commonly used, with 101 pellets, corresponding to the 101 names of the Prophet. It is to this rosary that reference is made in the story. The literal rendering of the Arabic MS. from which I took the tale is 'wash in the water of a hundred springs and a spring,' *i.e.*, a hundred and one springs."

A correspondent draws our attention to the fact that the remarks on malaria (*Quarterly Statement*, p. 86 *sq.*) should be completed by a reference to the great impression which has been caused by Mr. W. H. S. Jones in his recent monograph *Malaria*, where its moral effects upon nations is studied. Mr. Jones (10, Brunswick Walk, Cambridge) is still continuing his researches, assisted by observers in many parts of the world, and would be glad to hear from any of our readers who can furnish information.

Through an oversight in Mr. Offord's communication (*Quarterly Statement*, p. 88) allusion was made to the deity to whom *Ben-Hadad* owed his success. The name should have been *Zaker*, as a perusal of the description of the text will clearly show.

Several important works have reached this Office during the last few months. In *Coutumes des Arabes au Pays de Moab*, by Père Antonin Jaussen, we have an admirable and scholarly description, of about 450 pages, 8vo., of the modern usages as regards tribal life, custom and religion beyond the Jordan. It will be welcomed by all students of Oriental sociology and religion, and affords another example of the solid contributions to knowledge which we owe to the "École Pratique d'Études Bibliques" at Jerusalem. Père Lagrange's studies in Semitic religions, Père Vincent's exhaustive description of Palestinian archaeology, and the present volume on the modern natives of Moab form a unique trio which are indispensable for any thorough acquaintance with Biblical thought and life. Next, the eagerly expected memoir by Dr. Schumacher on the Austrian excavations at Tell el-Mutesellim (Megiddo) in 1903–5 has at length made its appearance. Volume I, with nearly 300 illustrations, is accompanied by a portfolio of 50 plates, and describes in detail the actual work. A second volume will be issued giving a more synthetic record of the results. The excellent manner in which the excavations are described, and the fullness with

which they are illustrated are beyond all praise ; and Dr. Schumacher is to be congratulated upon the beautiful volumes which lie before us. The first volume being entirely technical and for the benefit of specialists (to whose co-operation it appeals), we shall look forward with keen interest to the more popular account of the significance of Megiddo for Palestinian history. Finally, Prof. George Adam Smith's great work upon the history and topography of Jerusalem gives the reader the fruit of years of laborious collecting and sifting of material. It is a subject upon which he is admittedly one of the best of living authorities, and his book is marked with that care and accuracy which distinguished his always instructive *Historical Geography of the Holy Land.*

The many demands upon our space in the present number forbid further remarks, and we shall hope to return to these volumes in the next issue. We must mention, however, the valuable classified list by Dr. Peter Thomsen, of Halle, of books and articles on Palestinian subjects (*Systemat. Bibl. der Palästina-Litteratur*). Few are aware of the enormous growth of the literature bearing directly or indirectly on the Holy Land, and of the changes which are gradually making themselves felt, as Palestine emerges in the light of the history of ancient Western Asia. Many of the problems are appearing in another form, as the external evidence continues to accumulate, and while it is often premature to estimate the proper significance of the almost unwieldy material scattered through learned books and publications, the more recent expeditions and excavations, whether in Egypt, Asia Minor, Babylonia, or Assyria, are announcing numerous discoveries which will add to the still unpublished store of knowledge.

The attention of those interested in the subject of the Exodus of the Israelites is called to a new map of the "Desert of the Wanderings," from Mount Hor on the east to the Suez Canal on the west, and from Mount Sinai in the south to Beersheba in the north, which has been compiled by the War Office, and is based principally upon the sketch surveys of the Palestine Exploration Fund (scale 4 miles to the inch). In eight sheets, price 1*s.* 6*d.* per sheet.

Judas Maccabæus, by Colonel C. R. Conder, R.E. This interesting little book was among those of which the whole edition was

destroyed in the fire at Messrs. Bain's warehouse last year. It is now reprinted and can again be supplied (4*s.* 6*d.*) on application to the Secretary.

"Golgotha and the Holy Sepulchre," the last work of the late Major-General Sir Charles Wilson, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D., etc., is now ready. In this work the late Chairman of the Executive Committee of the Palestine Exploration Fund has brought together for the first time all the evidence which the most exhaustive research enabled him to collect bearing on the subject of these Holy Sites; and probably no man living had at once so intimate a knowledge of all investigations in the modern Jerusalem and so complete an acquaintance with what has been written about the Sites from the time of Constantine onwards. The price of the work (demy 8vo) is 6*s.*, by post 6*s.* 4*d.*, and cheques should be made payable to the order of George Armstrong, Acting Secretary to the Fund, and crossed "Coutts & Co."

The first edition of Mr. Macalister's work, "Bible Sidelights from the Mounds of Gezer," was quickly sold out, and a second edition is now on sale. It has been written to show how the results of digging in Palestine should appeal not only to the scientific anthropologist or archaeologist, but also to the Bible student who has no special interest in these sciences. The book contains a brief synopsis of the work of the Fund from its foundation to the present and a description of the site of Gezer, and its history. Price 5*s.* 4*d.*, post free.

The *Painted Tombs of Marissa*, recently published by the Fund, is now recognized as a very important contribution to the history and archaeology of Palestine in the last centuries before our era. It may be mentioned that the leaflet containing the result of the investigations by Mr. Macalister at the Tombs has been published, and can be had on application to the Acting Secretary by those who possess the volume.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers. Those which are sent by

Mr. Macalister, illustrating the excavations at Gezer and which are not reproduced in his quarterly reports, have been held over for the final memoir.

The attention of subscribers and others is called to *A Table of the Christian and Mohammedan Eras*, from July 15th, A.D. 622, the date of the Hejira, to A.D. 1900; price by post, 7*d*. Also to the *Meteorological Observations at Jerusalem*, with tables and diagrams by the late Mr. James Glaisher, F.R.S. Tourists and all desirous of accurate information about the climate of Jerusalem should not fail to send for a copy, price 2*s*. 6*d*.

The attention of subscribers is also called to a work by Sir Charles Warren, entitled "The Ancient Cubit and our Weights and Measures." He brings evidence to show that all weights and measures (except those of the metrical system) are derived from one source—the double-cubit cubed of Babylonia.

The Museum and Library of the Palestine Exploration Fund at Jerusalem are in the Bishop's Buildings, near the Tombs of the Kings, where the use of a room has been kindly permitted by the Rev. Dr. Blyth, Bishop in Jerusalem and the East. The Museum is open daily, except Sundays, and the Honorary Secretary, Dr. D'Erf Wheeler, will give all information necessary.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s*.

The income of the Society from March 20th, 1908, to June 19th, 1908, was—from Annual Subscriptions and Donations, including Local Societies, £673 12*s*. 4*d*.; from sales of publications, &c., £57 5*s*.; making in all, £730 17*s*. 4*d*. The expenditure during the same period was £607 10*s*. 4*d*. On June 19th the balance in the bank was £595 3*s*. 9*d*.

Subscribers who have not yet paid will greatly facilitate the Committee's efforts by sending their subscriptions in early, and thus

save the expense of sending out reminders, as the outgoings on the excavations at Gezer will be a heavy drain on the funds. Special donations during the quarter have been received from—

	£	s.	d.
Walter Morrison, Esq., J.P., *Hon. Treasurer*	110	0	0
Legacy bequeathed by the late James Hilton, Esq., F.S.A.	100	0	0
James Melrose, Esq.	5	5	0
E. S. Morphew, Esq.	5	5	0
Arthur M. Sutton, Esq.	5	5	0
Miss Enderby	5	0	0
Viscount Sidmouth...	5	0	0
C. W. Burt, Esq.	2	2	0
Miss Crewdson	2	2	0
Mrs. Cudworth	2	2	0
	£242	1	0

Subscribers to the Fund are reminded that, whilst the receipt of every subscription and contribution is promptly acknowledged by the Acting Secretary, they are now published annually, and not quarterly. A complete List of Subscribers and Subscriptions for 1907 is given in the Annual Report published with the present number.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Miss Mary A. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

Subscribers and others may be reminded that the new Raised Map of Palestine, constructed from the Surveys of the Palestine Exploration Fund by the Acting Secretary, is ready. It is on the scale of 6¼ miles to the inch and measures 3′ 6″ × 2′ 6″. It has already been used with great success by Professors of Old Testament history, and by teachers in Sunday Schools, and may be especially recommended for large classes of students. On view at the office of the Fund; further particulars may be had on application.

In order to make up complete sets of the *Quarterly Statement*, the Committee will be very glad to receive any back numbers which subscribers do not wish to preserve.

A complete set of the *Quarterly Statements*, 1869-1905, containing the early letters (now scarce), with an Index, 1869–1892, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Acting Secretary, 38, Conduit Street, W.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 38, Conduit Street, W.

The Museum at the office of the Fund, 38, Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

Photographs of the late Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area and Justinian's Church, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. The four photographs, with an explanation by Dr. Schick, can be purchased by applying to the Acting Secretary, 38, Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced prices.

The Committee acknowledge with thanks the following :—

"Jerusalem : The Topography, Economics, and the History from the Earliest Times to A.D. 70." With maps and illustrations. In two volumes. By Prof. George Adam Smith. From the Publishers.

"Tell el Mutesellim : Excavations at Meggido." With portfolio of drawings, 1903–05. By Baurat Dr. G. Schumacher. From the Publisher.

"Bulletin de Correspondance Héllenique," VII–XII, 1902.

"Les Apocryphes de l'Ancien Testament." From the Author, Dr. L. E. Tony André.

"Échos d'Orient," May.

"Homiletic Review," June.

"The Biblical World," May: "Beersheba Revisited." By Prof. G. L. Robinson.—"Recent German Theories of Foreign Influences in the Bible." By Prof. G. A. Barton.

"ΕΚΚΛΗΣΙΑΣΤΙΚΟΣ ΦΑΡΟΣ," Vol. I, Part I. Revue Ecclésiastique Scientifique et Populaire. Published at Alexandria.

"Ancient Jerusalem." By Selah Merrill.

"Ancient Architecture in Syria." By Howard Crosby Butler. (Publications of the Princeton University Archaeological Expedition to Syria, in 1902–05.)

"Systematische Bibliographie der Palästina-Litteratur." By Dr. Peter Thomsen, Halle, 1908. (A Classified List of References to all Books or Articles on Palestinian Subjects. Vol. I—Literature for 1895–1904.)

"Some Impressions of the Holy Land." From the Authoress, Miss Mary Tyrwhitt. (Parker and Son, Oxford, 1908.)

"Le Saint-Sépulchre: Étude historique et Archéologique." By Hubert Savoy, Freibourg, 1908.

"Al-Mashrik: Revue Catholique Orientale Mensuelle." (A New Phoenician Monument. By P. S. Ronzevalle.)

"The Irish Theological Quarterly." (New Dates in Oriental History. By Rev. Patrick Boylan.)

"Palästina," Parts II and III, 1908.

&c., &c.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

For list of authorized lecturers and their subjects, *see* end of the Journal, or write to the Secretary.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of _____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

Note.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

THE ANNUAL MEETING OF THE PALESTINE EXPLORATION FUND.

The Forty-third Annual General Meeting of the above Fund was held at the Royal Institution, Albemarle Street, London, W., on Wednesday, June 17th, 1908, the Very Reverend the Dean of Westminster presiding.

The Hon. Secretary read letters regretting absence from Dr. W. Aldis Wright, Col. R. C. Hellard, R.E., The Dean of Ely, Prof. T. G. Bonney, F.R.S., W. Lamplough, Esq., D. MacDonald, Esq., Rev. Wm. Henry Rogers, D.D., Prof. T. K. Cheyne, Rev. Arthur Carr, Mr. James Melrose, Rev. Montagu Butler, The Bishop of Ripon, etc.

The Chairman.—The first business that we have before us is somewhat of a formal nature. It is a resolution: That the Report and Accounts already printed and in the hands of subscribers be taken as read and be received and adopted. I beg to move that, and I will ask someone kindly to second it.

Col. Angel Scott seconded the Resolution and on being put to the Meeting it was carried unanimously.

The Hon. Secretary.—I regret to say that the General Committee has suffered the loss by death since our last Meeting of Mr. James Hilton, F.S.A., the Rev. Prof. Theodore Wright, who was for many years our Honorary Secretary in the United States of America, and whose death is a great loss to us, Major-General Sir Frederick Goldsmid, K.C.S.I., Col. Bramble and the Right Rev. S. W. Allen, Bishop of Shrewsbury.

Col. Sir Charles M. Watson.—I beg to propose that the following gentlemen be added to the General Committee of the Palestine Exploration Fund: The Right Rev. The Lord Bishop of Birmingham, Mr. E. C. Blech, now Consul at Jerusalem, who has shown a great interest in the work of the Fund, the Rev. Father Hugues Vincent of the École d'Archaeologie, Jerusalem, who has done an immense amount of work for the research in Palestine

antiquities and who takes the greatest interest in the Fund, and Mr. Francis William Percival, F.S.A., who also takes a great interest in the work; Major-General C. E. Cumberland, R.E., and the Ven. Archdeacon Dowling, D.D.

The Rev. C. H. DRINKWATER seconded the Resolution, and on being put to the Meeting it was carried unanimously.

The Ven. Archdeacon DOWLING.—I have very great pleasure in moving: That the Executive Committee be re-elected, and I should like to be allowed to say one or two words. They are to this effect, that yesterday I had the pleasure of meeting Dr. Lunn and proposing to him that instead of the ordinary tours that he makes in the steam yacht "Argonaut" there should be in future, beginning with next year, a camping tour throughout Palestine, and we think that this will be managed in the course of time, perhaps not immediately, but it will give the people who come an opportunity of passing through the country and not only visiting Jerusalem and Jericho, but of going through Samaria and Galilee, and so understanding something more about the inner life of the country. I have great pleasure in moving the Resolution.

Mr. HOLMAN HUNT seconded the Resolution, and it was carried unanimously.

The CHAIRMAN.—I now have very great pleasure in calling upon Professor Alexander Macalister to describe the excavations at Gezer and the recent discoveries there. Professor Macalister is very well known to many of us. His extraordinary versatility enables him to take a valuable interest in a large number of subjects. I myself have some notes of a lecture which he delivered a good long while ago on "Early Religions in Egypt." His personal interests and personal investigations, I was going to say, extend from China to Peru; at any rate, they certainly have found a place in China, and we shall, I think, listen with very great interest to anything he has to say, partly for the sake of his son whose work has been so valuable and partly for the great pleasure it will be to us to welcome him and to listen to him. I call upon Professor Alexander Macalister.

Prof. ALEXANDER MACALISTER.—Mr. Chairman, Ladies and Gentlemen,—I have been asked to describe the advances that have been made in the exploration of Gezer since the last Annual

Meeting. I come as the substitute for the Chairman of Committee, who asked me to take his place as he has been away, and, as his deputy, I shall describe the additions that have been made to our knowledge within the last year. I need say nothing in general about the earlier work at Gezer—this remarkable Levitical city situated on the border of the tribe of Ephraim which has now been under exploration for five years—as you are all familiar with its history and situation.

On the slide shown I have marked in ink the additions that have been made to the exploration within the last year. You will notice that the striated portions are where excavations have been made, during the former Iradeh ; but now since the second Iradeh all these portions marked in black have been excavated. During my last visit to the Tell, nine months ago, my son and I went over it carefully, measuring it to see what prospects there were of finishing the work during the existence of the present Iradeh. We found that of the surface within the city wall unfortunately nearly one-quarter is inaccessible, as that quarter is occupied by the farm buildings, the cemetery and the Wely ; I say, unfortunately, because I believe that that is one of the best portions of the city. Most of the recent finds that have been so interesting to us have been around the border of that inaccessible portion. Another quarter, or thereabouts, has been thoroughly and minutely examined and has yielded up all the information that can be got from it, and so a little less than a half yet remains to be done and we have only nine months to do it in ; therefore it behoves us during that nine months to employ sufficient labour in order that the work may be done as thoroughly as possible. In part of that half I believe the amount of *débris* is not very thick and consequently the work will progress more rapidly than before. Still it is a great amount of work to do in such a short time.

I shall recount, somewhat in chronological order, some of the more important finds that have been made within the last year, and in order that you may have an idea what the sequence is that I follow, I put on the screen this diagram. When excavations were made through the hill the surface stratum was one in which were the materials remaining from the old Hellenic and Maccabean settlement of Gazara. The Maccabeans were the last inhabitants who built upon it. Under that was an older city, dating back to the time of the Jewish occupation, which began, as you will

remember, when Solomon received the city as part of the dowry of his wife, Pharaoh's daughter. We will call this second stratum the Jewish. Under that there is a third stratum in which are the remains of the city that the Israelites found on the occasion of their immigration into the land, and which they were unable to take, and in which, for the two hundred years or so that intervened, the Israelites and the Canaanites lived side by side. That we will call the Exodus city. Under that there is a city from which the seven Tel el-Amarna letters were sent. This is the city that was taken by Thothmes. Under this again there lies an earlier Semitic settlement, showing a longer period of occupation even than the strata from Thothmes to the surface. And lastly, on the surface of the hill under all these there are the remains that were left of the cave-dwellers who lived there before any settlement on the land.

We will take our chronological events, then, from the surface downwards. One of the most important discoveries has been that while on the surface of the hill there was no sign of any settlement from the Maccabean age to the present, yet in the valleys all round there were traces of a fairly large population in Roman and in Christian times. At two places, one directly to the east, Khurbet Yerdeh, and another directly to the south-west, Abu-Shusheh, there were centres of population. These were in the neighbourhood of the two great wells in the valley from which their water supply was taken. One knows the importance of water supply in determining the settlement of people. And so we find when the fortified city ceased to exist as such, the people settled in the valley, and two series of deposits were found there. On the east and on the south-west were found numerous tombs containing within them Christian emblems. At El Kusa, there were the remains of a Christian Church, having a mosaic pavement. Here also was part of a stone cross. One of the most interesting remains of this date is a small earthenware paten in the middle of which is a fragment of glass cemented to its surface, probably covering a fragment of the eucharistic element. We know from the account given by St. Amphilochius that the practice of burying such with the body was practised by St. Basil in the fourth century, and was probably of much older date, as the further development of the ritual, the administration of the sacrament to the dead, was forbidden by the second Council of Carthage in

A.D. 379. Glass patens are extremely rare, but examples of them have been found. I am unaware of the existence of an earthenware paten in any collection. These, together with small bronze crosses, lamps inscribed with the cross, and one with a Greek inscription on it, show that there was a Christian population in the valley round about Gezer, probably between the third and the fifth century. The ruined Basilica at Latrun, about five miles off, is probably of this age.

Other remains of the period of Roman occupation occur at Khurbet Yerdeh. In the course of the harvest some years ago a small corner of mosaic pavement was exposed. When my son saw this and sent down a gang of men to clear the surface he found this mosaic pavement was a part of a great bath establishment; the entire bath house was something like 68 feet long by 58 feet wide, and although the walls were ruined its foundations remained and the plan of the house could be traced. From it there passed a well-built street drain, and on tracing it he found remains of foundations and houses. Probably there was something more to be found there, but the pressure of the work within the city wall was such that he had to withdraw his men from carrying out that portion of the work, having ascertained the fact that there was a Roman settlement in early times in the valley round the Tell. On the other side, north-west of the Tell, he found another portion of a Roman pavement, but all the material around it had been cleared away, so it is impossible to say of what kind of building this was the floor. These were the principal Christian and Roman remains in the immediate neighbourhood of the Tell itself.

Several new tombs of Hellenic and Maccabean age have been opened, and in several of them Ossuaries were found. These are common throughout Palestine and a number of interesting and very ornately inscribed Ossuaries came from the Hellenic graves about the Tell. The most important find of this period is a jar handle bearing an inscription in archaic Hebrew letters, and as this was found in company with some Rhodian jar handles which were were dated, it is probable that this jar handle was of Maccabean age. The seal, which has archaic letters, has been the subject of comment in the *Quarterly Statement*. The other discoveries of this date, the Maccabean castle, the great system of Maccabean baths and the wall built by Simon, have been described at former Annual Meetings. I might just mention one fact which is certainly

of interest to me and may be of interest to you, namely, that my son, finding that the tents were unsuitable in the rainy season, has cleared out a part of Simon's Palace and has roofed it over and is living in it, so that this Palace, which ceased to be occupied when Simon Maccabaeus went out of power, is now re-occupied by the Palestine Exploration Fund.

Passing on from the Maccabean period the further exploration of the stratum containing the Philistine graves has brought to light some pottery and some moulds for the casting of gold ornaments of elegant decorative forms. Professor Myers, who has seen and commented upon the drawings and casts of the materials found in these tombs, seems on the whole to think it probable that these graves have been correctly described as Philistine graves. There is certainly a fairly strong Cretan affinity shown by the art of these remains which shows a higher grade of culture than that of the ordinary Canaanite or Israelite, and clears the reputation of that little-known people from the ignorant stigma which is implied in the modern use of the name Philistine. In ancient times they were a cultured people. The lantern slide shows some specimens of silver work which they buried in one tomb; and several extremely beautiful pieces of pottery carefully painted have been found in another tomb, showing strong signs of Ægean influence. We have reason to believe, from the Biblical narrative, that the city was in Philistine hands in the time of David.

To this period, or perhaps to the later part of the age preceding it may be referred a symbolical foundation sacrifice in which the victims were represented by small bronze and silver models. In the earlier Canaanite city a remarkable foundation sacrifice consisted of two male victims buried with food vessels. The skeleton hand of one of these was placed in the food bowl as if to represent him partaking of the food which it contained. With this may be compared many previous finds of food vessels, under buildings, containing one or more finger joints. In this instance in addition to these human remains beneath the corner stone there was, in a cavity under the threshold, the upper half of the skeleton of a lad of about sixteen to eighteen years old, who like the girl found in the cistern during the first year of the exploration, had been sawn in two about the middle of the back. Here, as in the case of the girl, there were no vestiges left of the lower half of the body. This seems to render it probable that the former

example was not an accidental case of mutilation, but that there was some ritual purpose in the severing of the body. In another foundation sacrifice beneath a building near the approach to the temple about to be referred to, the head of a little girl of two-and a-half years old lay on some potsherds covered with fragments of charcoal, and with these were some bones of a sheep or goat and a portion of a cow's tibia, the extremities of which had been trimmed with a knife. A later example of a foundation sacrifice which is reported is remarkable because the whole of the body of a goat had been buried with the human victim. Probably to about the same date may be referred a remarkable form of incense burner (see below, p. 211), resembling very closely one of the finds by Dr. Schumacher at Megiddo.

In the stratum of Tel-el-Amarna age was found the singular astronomical tablet which has been described and commented on in the *Quarterly Statement*. In this the sun, moon and one star—probably Venus—are delineated, together with figures representing the constellations Aries, Taurus, probably Gemini, Cancer (or the Tortoise) Leo (or Canis), Aquila, Spica, Libra (or the Yoke), Serpens, possibly representing the Ecliptic or the Milky Way, Scorpio, a barbed bolt probably indicating Sagittarius, Capricornus, Amphora and Pisces. All these forms closely resemble those which have been found on those Babylonian monuments known as Kudurrus or boundary stones; for example, the sitting or kneeling figure of the bull and the ladder-like basis upon which the fish stands. The clay tablet has received these impressions from a cylinder seal being rolled over it. The sequence can be better determined by comparing the different panels, as the tablet is badly cracked. The clay was unbaked, and although fairly firm, yet it had suffered damage even before its exhumation. Within the last two months in an earlier stratum, a somewhat similar, but not identical, series of figures has been found impressed on a seal. Several cylinders, undoubtedly Babylonian, have also been discovered. All these indicate some early connexion with, or intercourse between Gezer and Babylonia. The discovery of some blank tablets in size and shape resembling the commonest type of Babylonian or Assyrian tablet was disappointing, but it was interesting from the fact that Prof. Sellin found a similar set in Jericho.

While these are tokens that there was some connexion with Mesopotamia on the one side, the number of monuments connecting

Gezer with Egypt are far more numerous. The discovery of a large building stone on which the best part of a large hieroglyph, "Nub," was inscribed, may possibly indicate that some building existed there with an Egyptian inscription (see below, p. 201). A portion of a royal oval inscribed on a terra-cotta plaque was disappointing, as it was broken across just below the honorific titles. The oval of Rameses III was found on a sherd of a green enamelled vase, and numerous scarabs have also been found during the past year principally of the middle and early new Empire. It will be remembered that in former years many Egyptian remains have been described ranging from the remains of a slab of the VIth dynasty to the base of a small figure inscribed with the name of Naifaarut, the last king of the XXIXth dynasty, about the year 379 B.C. Gezer was, therefore, politically and commercially in communication with Egypt during most of its existence as a City.

One of the most important and interesting remains of the Amorite period during the year was the new alignment of masseboth leading up to the temple, described last year, whose façade was probably supported on wooden pillars, the round stone discs supporting which were found *in situ*. You will remember there was found a large number of circular stones like cheeses in a row. I was very much struck in many cities in the middle of China to find that the front of the houses and in some cases the fronts of some of the temples had similar wooden pillars and underneath each pillar there was a circular disc of the same pattern. Of course it is one of those easily understood bits of construction required to make the pillar firm on an earthen floor. The stone was laid down and the pillar stood on top of it. Up to the temple an alignment of large pillar stones was found standing in a row, not quite as large as those of the great high place, but still a conspicuous row. Four, and the stump of a fifth were *in situ*, and some others had been worked up into lintel stones. In this connexion may be mentioned the great square rock cutting on what was part of the western ridge which in its outline and general appearance was singularly like the so-called high place at Petra which was discussed by Professor Driver in his recent lectures. There was no rock altar, but in the place where, in Petra, the altar stood there was a pit which may have been the basis of an earth altar such as that found in the great high place of Gezer. This is another illustration of the fact that at Gezer have been found examples of almost every kind

of ancient structure which have been described from other Palestinian sites, the one exception being the Taanach altar. But we know not what a day may bring forth.

The great tunnel which was lately found has been described in the *Quarterly Statement* for January and April, and will be fresh in your memory, and, consequently, I need say very little about it. An interesting article relating to it, by Father Vincent, is published in the *Quarterly Statement*, and to that I direct your attention (see below, pp. 218–229). This gigantic engineering work, executed about 2000 B.C. and abandoned 1500 B.C., has proved to be the sloping approach to a well. The tunnel is about as high as the "Twopenny Tube" and about half as wide, and descends by eighty steps gradually to a depth of 130 feet below the present surface of the hill, or 94 feet beneath the rock surface. The tunnel is so constructed that the light from its mouth falls down the shaft and illuminates the brink of the well where the water carrier stands to fill her pitcher. It is by far the greatest work which has been found in Palestine, and readers of Prof. George Adam Smith's monumental work on Jerusalem will appreciate the importance of this intra-mural water supply in a fortified city. The next slide will give you some idea of the size. This is a view taken in the tunnel itself.

Here is a view looking up the tunnel towards the opening. In excavating, in order to save time, steps were made to allow boys and girls carrying out the *debris* to climb up. This slide shows these at the side. Those shown in the centre are the ancient rock-cut steps down into the tunnel.

It seems descending from the sublime to the ridiculous to refer here to some of the smaller finds, but they have their interest. Among these are a little terra-cotta shrine or model of a house much like the curious ancient models found in Egypt. This is taken from a stratum dated about 2000 B.C. Of a little later age is the series of grotesque figures found in a hollow on the top of a tower of the ancient wall. Whether they were intended as portraits of the inhabitants I do not know, but they were found where they had been placed before 1500 B.C. Curious pottery of the second Semitic period with vertical lenticular cup-like appendages to the mouth have not been found elsewhere in Palestine. What the meaning of this vertical cup at the end of the mouth is, I do not know.

Coming now to the oldest period, that of the cave-dwellers, a discovery of singular interest has just come to light. A small

group of caves was found. Here is a plan of the entrance to the caves and here are the various chambers. The bottom of these caves were indented with cup markings. The date may be gathered from this, that over the mouth of the caves were eight strata of buildings, the earliest representing the first Semitic period and the third being contemporaneous with the XIIth dynasty of Egypt; that is going back at any rate 2000 B.C., so that the time when the cave-dwellers lived in these must have been long behind that. Upon the floor of one of these caves were a number of cup-markings of the familiar pattern. Those cup markings have been found in many other parts of Gezer. On the wall of the cave were found these extremely graphic linear pictures scored on the surface by the old cave-dwellers who lived at least 3000 years ago (below, pp. 216–217). These are the earliest examples of Palestinian art that have come down to us. And as these compare with and resemble those found in many caves in the south of France, they show that the dwellers in Palestine, in the Stone Age, had a great deal in common with those who lived in the South of France. They are mostly rude outlines of animals, generally cows, and comparable with those found in the caves of Cannstadt, Perigord and Laugerie Basse, and mostly of the type which the Abbé Breuil calls his fourth class of simple graffiti, not deeply incised and constructed of discontinuous lines. Some, however, are representatives of his first class with stiff, continuous, deeply cut lines.

Although it does not form any part of my commission, I should like to be allowed to add to this description four remarks. One, that only nine months remain in which to finish the excavations. And as experience has shown that every new pit reveals some object of historic or archaeological importance, if any large part of the Tell is left unworked we may miss material of significant value. Secondly, we are now only one of the three Societies in the field of excavation in Palestine, and although we are the oldest we are working under greater disadvantages than any of the others, having less money to spend and consequently being only able to afford one superintendent while the others have a much larger staff of experts. Thirdly, we have also the disadvantage that in spite of the value of the researches little public interest is taken in them. To illustrate this want of interest it is worth notice that in the index of Archaeological Papers which is periodically published by the Society of Antiquaries no notice is taken of the work of the

Society, and the papers in the *Quarterly Statement* are never catalogued. Fourthly, before the next meeting the excavations will be closed, and the Committee of the Fund will have to face the task of publishing the final Memoir. The publishing of this immense mass of material will be attended with considerable expense, but if it be not adequately and exhaustively set forth and illustrated, the exploration might as well have been left undone.

The CHAIRMAN.—I now call upon one who is very well known to many of us from his work, to some of us personally, Professor George Adam Smith, to address the meeting.

Professor GEORGE ADAM SMITH.—Mr. Dean, ladies and gentlemen, I have the honour to submit for your acceptance the following resolution :—"That this Meeting desires to express its appreciation of the thorough and careful manner in which the excavations at Gezer are being conducted by Mr. Stewart Macalister, to whom they offer their congratulations."

Before speaking more particularly to the terms of this resolution I may be allowed to say something with regard to the previous work of the Palestine Exploration Fund in general. The results of that work are so much a common-place in all further exploration of Palestine that we are in danger of forgetting how valuable they have been. They form the foundation, and will form the foundation for all time to come, of excavation and exploration of all kinds. But like every foundation they run the fate of being constantly used without being properly appreciated, and I should like to say one or two words this afternoon with a view of recalling to your minds how thorough, how accurate, how valuable, and how indispensable the great work of our Fund has been from first to last. Take, for instance, the great map. That map is absolutely indispensable, and will be for years to come to every geographer working within its limits. One is glad to note the recent surveys of provinces lying round the sphere of that map. These surveys have in every case started from the triangles laid down by the Engineering Officers who so ably conducted the Palestine Exploration Fund Survey. For instance, we all have used for many years Col. Conder's survey and map of the Ammonite and Moabite territory to the east of Jordan, but within the last year or two we for the first time know to the full how accurate and thorough Col. Conder's survey of that part of the country was. You may remember it had to be carried

through with extraordinary rapidity and in the face of a large number of obstacles put in the way of Col. Conder both by the authorities and by others. And now that the Turkish authorities have succeeded in reducing to order the provinces east of the Jordan and travellers come and go and other surveyors have been over the region, we are furnished with a number of proofs of how accurate and how sound Col. Conder's survey was. I feel that in the light of these testimonies of recent years tribute should be paid to that work. We are glad to see here present one who took part in it, Mr. Armstrong, to whom the Fund is so much indebted for all the work he has done. It has been my duty within the last month to go through the work and maps in which Herr Musil describes and has laid down the survey which he carried on not only over part of Col. Conder's territory, but to the south as far as the coast of the Red Sea. And I will say this, that in the part where Herr Musil's survey covers Col. Conder's, while the nomenclature in Herr Musil's more leisurely expeditions is perhaps more often to be preferred, from my own knowledge obtained upon two visits, I can say that I greatly prefer the way that Col. Conder has surveyed and mapped the natural features and the topography generally. Coming from that to another point, there are the excavations at Jerusalem in which our Society was practically the pioneer and in which it has done by far the greatest part of the work. Sir, it is usual for Britons to hear that while we have distinguished ourselves in many directions as pioneers, still our work has failed in comparison with German work in thoroughness and accuracy. Now it has been my duty during the last few years to go very carefully over both the German work and the British work which has been done from first to last in surveying and exploring Jerusalem, and I state it as my deliberate opinion that the British work, in any comparison, has nothing whatever to fear. In many cases it is the more accurate and the more thorough, if I dare make that comparison. We all know of course how Sir Charles Warren's and Sir Charles Wilson's labours in surveying Jerusalem and in excavating the surroundings of the Temple last to the present day in value, and must last always as the basis for any other work that is done upon the sacred city. One has only to look at the great new map which Herr Kuemmel has prepared, to see how very much he is indebted to Sir Charles Wilson and Sir Charles Warren, and other British

work for the materials of that map, and of the memoir by which it is accompanied. And then take Dr. Bliss's work, the work of another Agent of the Fund, round the southern part of the city. I have been over that, and I am able to say unhesitatingly that I do not know of any work done in or about Jerusalem which was done more thoroughly, or the presentation of which is more lucid, or the inferences and judgments upon which are more sane and proportioned than those of which Dr. Bliss, the Agent of this Fund, has been the author. It was his part in one portion of his field to work over a piece of land that had been already operated upon by workers of another Fund and another nationality, and Dr. Bliss succeeded in making important discoveries there, where they had failed a few years before, just because of the extra patience, the extra ability, and the extra thoroughness which he put into his work. Now, in coming to speak, if I am not detaining you too long, for a minute upon the particular subject of the resolution before us, I find myself in some difficulty. Three years ago at this meeting I had to speak of Mr. Macalister's work in Gezer as a witness and a grateful student of it, and I found I could speak of it only in superlatives. Well, sir, to-day after reading the reports of another year under the new Firman, and after reading and hearing the testimony of trained archaeologists of other nations who have visited Mr. Macalister and his work, all I feel I can do is to underline those superlatives which I used three years ago. Mr. Macalister of course in the first place has been singularly fortunate in his opportunities, and I should like first of all to emphasize how exceedingly fortunate he has been in his Committee. I should wish, sir, as an ordinary member of the Council of this Fund, to congratulate the Executive of the Fund upon its decision to work out thoroughly this one site of Gezer instead of, with the new Firman, departing to begin work upon another site. This may seem to be of less interest to the public. But I am sure it is this way of work which will tell in the long run, and in fact the report of this year's labours laid before you by Professor Macalister will show you that it is already beginning to tell in the most impressive and valuable manner. Then, in the second place, I think that we must congratulate Mr. Macalister on his good fortune with the Turkish Commissioners who have been appointed at various times to work along with him and on the friendly interest shown by the Turkish authorities generally in safeguard-

ing and helping his work. Now, of course, a great deal of that is due to Mr. Macalister himself, and to the constant honesty, candour and unselfishness which he has shown in all his work. By these qualities he has won in a most remarkable degree the confidence of the authorities. I should like to say also how much we owe to another gentleman in connection with this work, whose name I do not remember to have heard mentioned before, in connection with the work at Gezer, at an Annual Meeting. Mr. Macalister is fortunate in excavating a site which is not in possession of ignorant peasant proprietors but which is administered by a gentleman who is perfectly aware of, and sympathetic with, the great ends of the work. No one who has had the good fortune of making the acquaintance of Mr. Serapion Murad can fail to have been impressed with his culture or with the great sympathy which that culture enables him to show with all work in Palestine for the advancement of knowledge. Mr. Murad is the administrator of the Gezer Estate, upon which site Mr. Macalister is excavating, and one is glad to see in last year's report the special tribute that Mr. Macalister pays him. Mr. Macalister found, on going back with the new Firman to recommence the work that none of the buildings which he had exposed under the previous Firman had in any degree suffered from their long exposure, and he puts that down to the care and friendly interest of Mr. Murad. I feel that in passing this resolution we ought to keep in mind the gratitude of ourselves and all interested in this work to Mr. Murad. Then again, if I may say so in his presence, Mr. Macalister has also been exceedingly fortunate in his father. I do not think, sir, in the whole history of archaeology that any explorer or excavator had ever a father who was at once an expert archaeologist and an expert anatomist. If I may remind you, the story is told of Thomas Carlyle that on visiting for the first time his friend Richard Monckton Milnes he found that his young friend did not smoke and that he had a father who was very fond of smoking and a great connoisseur in tobacco. Looking through the mist of smoke in the library at young Milnes, Carlyle said, "Oh! Dicky, Dicky, what a father you have had wasted upon you." Now we feel Mr. Macalister has just had the kind of father that every archaeologist should possess, and that so far from being wasted upon him the two have worked together in a most admirable combination with the result of many discoveries and appreciations,

especially of those skeletons and skulls, some of which we saw, that would have been impossible unless the two had been working together. Well, in conclusion, with all these opportunities Mr. Macalister has shown during the past year the very same qualities as he displayed while working under the first Firman, the same wide knowledge of archaeology, the same opulence, if I may put it that way, of archaeological knowledge, the same practical sagacity whether in conducting methods of excavation or in managing his workmen (which after all is a very important affair) and the same fertility of resource in suggestion, the same mobility of theory and opinion that distinguished his work in the years gone by. There is no need for me to go through what the results of that work have been; we have had them put before us by Professor Macalister this afternoon and we understand them. But, ladies and gentlemen, you will permit me before sitting down to emphasize two things, and the first of them is this: the extraordinary range of the work which Mr. Macalister has uncovered in Gezer. I know that there is no other site in Palestine, and I am almost sure that there is no other site in the whole world, which has been uncovered through such a long range of time, lasting from the stone age and troglodite caves, from before 2500 B.C., down to Roman baths and Byzantine churches. You have heard how much still remains to be done. Well, it seems to me, if I may use such strong language, little short of a scandal to the British public that this work should want so much the support which it needs. It is pointed out in one of the last numbers of the *Quarterly Statement* that if all of us who subscribe to the Palestine Exploration Fund would but double our subscriptions for one year the Society would be enabled to get over a great deal of the surface still remaining unexcavated before the next nine months are past and the Firman has run out. I hope all the subscribers will lay that to heart. I am sure I appeal to many here who can do more, and through them and through the Press to others throughout England who are interested in this great, and as I may call it, this sacred work, who could by several large subscriptions immediately raise the £500 or £1,000 which are required to carry Mr. Macalister's work to the perfection to which his ability and thoroughness will certainly carry it if only he has the means at his disposal. I have very much pleasure, sir, in moving the resolution.

Dr. Percy D'Erf Wheeler.—Mr. Dean, ladies and gentlemen, I deem it a great honour to stand before you this afternoon to second the Resolution that has been so eloquently commented upon by Professor George Adam Smith. I am here in rather a unique position, both as one of the oldest residents in Jerusalem, where I have lived for nearly 23 years, and also as the Hon. Secretary of this Fund in Palestine. It has been my privilege to see much of the excavations done by Dr. Bliss, and with his name I couple that of Mr. Dickie, whose beautiful and wonderful drawings are known to all of us. And it is also my good fortune to have known Mr. Macalister, and to have seen a good deal of his work, especially that at Gezer. I believe I was one of the first to go down that wonderful rock-cut tunnel that he has just excavated; it is a marvellous piece of engineering work for those ancient times. It was also a curious experience to have had tea with Mr. Macalister in the castle or palace of Simon Maccabaeus. My words must be few because it is impossible to say much after the stirring address we have just listened to from Professor George Adam Smith. I can corroborate and underline the superlatives with which Professor George Adam Smith has described Mr. Macalister's work. He combines in his work efficiency, accuracy, and what is very important, economy. He is indeed fortunate in having the help of his father, Professor Macalister, of Cambridge. In seconding this Resolution I would plead with you on behalf of this Exploration Fund, to become one guinea subscribers. It is not very much for such an excellent and practical work; and I take this opportunity as one of the delegates from Jerusalem to the Pan-Anglican Congress, to press upon the Bishops, and upon the clergy—why, if only all the *Bishops* became subscribers, that would alone be a great help—the importance and necessity of helping forward such a work, especially when they remember how closely they are connected in a peculiar manner with that Holy Land from whence comes our knowledge of our Holy Faith, so much strengthened by discoveries made by the work accomplished by this fund.

The Resolution, on being put to the meeting, was carried by acclamation.

The Chairman.—It would be impertinent on my part, ladies and gentlemen, to attempt to add anything to what has been said of the work of the Society here this afternoon by those who are

truly qualified to speak upon it. It has been a very great intellectual pleasure to listen to the extraordinary exposition which we have heard of the various layers of civilisation which have been in turn discovered and unearthed at Gezer. How is it we do not know more about this? How is it that I knew nothing about it at all until someone asked me a few years back to become a member of the Society and told me Dean Stanley had been one of its great supporters and that he had begun this work in the Jerusalem Chamber? Why was I not urged long before to join this Society? It seems to me the work of the Society is not at all as widely known as it deserves to be, and as for its interest it might be. I commend to the Committee, as a suggestion, that if in some way or other it could be brought more widely, say before the clergy, with a request that they would spread interest in the Society, a great deal more might be done. Of course the Society started with a great wave of interest and for a very long time the original subscribers carried on the work. But the time comes when death carries away those who have begun these great movements, and unless there is a constant effort to interest the younger students in these things, and to draw them in some way or other, it must inevitably be that the work of the Society must suffer because its finances from natural causes have begun to diminish. I trust that the suggestion Dr. Adam Smith so eloquently made to us will be carried out, and that we shall if possible all of us agree to double our subscriptions for this year. I shall be perfectly willing to double mine for this year in order that this particular piece of work may be properly put through. It seems to me that there is nothing more that I can say about the Society. My own line of study has not lain in the Old Testament specially, nor has the topography of Palestine been a matter to which I have had to give anything like serious attention. I think that we have generally to recognise the very great service which has been rendered to us, I will not say by the popularisation, because perhaps the word somewhat carries with it a suggestion of contempt, but if I could find some other word that was free from that, I would use it; at any rate, I do think we ought to recognise the very great service that Dr. George Adam Smith has rendered to us by bringing these things in an attractive form before the minds of the public generally. His works have been invaluable to theological students and to readers of the Bible;

and they have carried in an interesting and stimulating way a knowledge of a great deal of the work which this Society has done. I am now myself, in the midst of the attractions of this interesting month, struggling at night with, or rather, I am resting at night upon, his pleasant book on Jerusalem, and I commend that most heartily to you. I believe that that book in itself will be a stimulus which will be of use to the work of this Society. I now call on Sir Charles Watson.

Sir Charles Watson.—I would ask your permission to call upon this meeting to give you a very hearty vote of thanks for having been so good as to come here, notwithstanding your numerous engagements, to preside over us on this occasion. You have alluded to the fact of Dean Stanley having taken an interest in the Society, and I think it is an interesting fact that it was just forty-three years ago since a meeting was held in the Jerusalem Chamber at Westminster under the auspices of Dean Stanley at which practically the Society was originally founded, and that it was Dean Stanley who was on the first Committee which drew up the first Prospectus as regards the work to be carried out, and also laid down the principles upon which the Society was to be guided. Those principles and the Prospectus have never been altered, and we are still carrying on the work which was started in Westminster Abbey. And I am glad that on this occasion, too, we should have a Dean of Westminster to preside over us and to take an interest in the work. I would ask you, ladies and gentlemen, to consider this Resolution to present a most hearty vote of thanks to the Dean for having presided over us, and I will ask Mr. Walter Morrison, who is one of the original Members of the Committee, to second the Resolution.

Mr. Walter Morrison.—Ladies and gentlemen, I second this Resolution with the greatest possible cordiality. I suppose I must be the only surviving member of the original General Committee, and, as you have heard, this Society took its birth in a very appropriate place, that of the Jerusalem Chamber, and Arthur Stanley was always very interested in the Fund and very good to us. Well, now, this is a special occasion for the English Church. There are bishops and clergymen from every part of the English-speaking world in our midst; we run across bishops in all the streets and everywhere, and it is only natural that they should

gravitate towards that place which may be regarded as almost the centre of the English-speaking world, that great Abbey of Westminster, of which we are all so very proud. And so I am very glad indeed, that on an occasion like this we should again have the Abbey of Westminster connected with the Palestine Fund. I thank the Dean on your behalf and on my own very heartily for his being able to find time among his numerous avocations to be with us to-day.

The Resolution, on being put to the Meeting, was carried unanimously.

The CHAIRMAN.—I thank you very much, ladies and gentlemen. I congratulate the Society on having been able to draw together so excellent a gathering at a time when our interests are scattered in so many directions.

The proceedings then terminated.

EIGHTEENTH QUARTERLY REPORT ON THE EXCAVATION OF GEZER.

Fifth of the Second Series.

11 *February*—9 *May*, 1908.

By R. A. Stewart Macalister, M.A., F.S.A.

The work[1] during this quarter has been confined to the Western Hill, on which another trench has been dug, west of that containing the great tunnel. The unusual depth of soil on this part of the mound has prevented further extension of the area examined. But just as this report is being written a trench 100 feet wide has been begun, which it is intended to run east and west, and to connect the clearances already made on the Eastern Hill and in the Central Valley. This will submit a very large proportion of the eastern end of the mound to excavation.

Though for a considerable part of the three months covered by the present report no "finds" were made that call for special notice, on the whole the past quarter has been among the richest of any in results of interest. Several most suggestive discoveries were made, among them one which, if my interpretation be correct, is of the first importance, and opens quite new ground in the early history of Palestine is general, and of Gezer in particular.

§I.—A Remarkable Building Stone.

The stone represented in the photographic view (Fig. 1) was found associated with débris contemporary with the XIXth Egyptian

[1] In the last report, p. 106, line 27, for "*Fir'aur*" read "a daughter of *Fir'aun*," and on p. 109, line 6, for "is" read "are," and make a similar correction on the same page, line 5 from end.

dynasty. It is an irregularly-shaped block though the irregularities are due rather to injury than to intention on the part of the masons. The length is 3 feet 7 inches, the breadth 1 foot 10 inches, and the thickness 1 foot 9 inches. It was lying loose in the débris, not radically connected with any building; close by was a standing stone 4 feet 5 inches high, but the foot of the latter was sunk so deep in the ground that its head was flush with the top of

Fig. 1.—Building Stone with Hieroglyphic Character.

the block: so that in all probability the pillar stone belongs to a much earlier date.

When the stone was turned over to get it out of the way, in order to examine the underlying débris, it was found to have one-half of the hieroglyphic sign *nb* ("gold") with a horizontal stroke over it, deeply engraven upon its end. These characters must have belonged to an inscription of monumental size. The stone, except for the chippings from the sides which have reduced it

to its present irregular form, is complete, and the other half of the sign must have been carved on another stone adjacent to it in its original position.

In short, we have here a building stone that must have belonged to some structure wholly or partially covered with hieroglyphics, like the temples of the Nile valley. We cannot suppose that this stone was imported from Egypt; its great weight, and the purposelessness of such an undertaking, exclude that hypothesis. The building to which the stone belonged must have been in Gezer itself.

Although the evidences of Egyptian intercourse, not to say domination, have been conspicuous throughout the whole excavation, and have been emphasized many times in the course of these reports, yet that a building covered with hieroglyphics should have existed in Gezer, or anywhere in Palestine, is an unexpected result of the Fund's researches. It is to be hoped that the excavation will be rewarded by the discovery of, at least, the foundations of the building itself. Most probably, however, the structure was treated as a quarry when it passed out of use, as the stones were evidently valuable, and consequently little or nothing of it can be expected to remain *in situ*.

It would be futile to speculate at length on the nature of the original building with nothing but one stone, bearing half of a single character, to guide us. The best known Egyptian structures covered with hieroglyphics are temples or tombs. The letter of the inscription that survives is almost too large to have belonged to a comparatively small structure like a tomb; a large building like a temple would be more probable. It would be interesting to know further whether the temple was dedicated by its Egyptian builders to local Canaanite divinities, or to Egyptian gods; the former would be the more likely, though the latter is not impossible—a letter from the town of Tunip,[1] which asserts that "the gods . . . . of the king of Egypt, my lord, dwell in Tunip," seems to show that the Egyptian deities had unusual ex-territorial privileges.

However, all we can definitely say at present is the one interesting fact, that Egyptian domination was so strong in Gezer that there existed a structure bearing a hieroglyphic inscription upon its walls in characters of great size. Even if the building itself be no

[1] Tell el-Amarna Letters, ed. Winckler, No. 41.

longer forthcoming the fact permits us to hope that the three Egyptian inscriptions already found, will be supplemented by others before the work closes.

§ II.—A new Type of Interment.

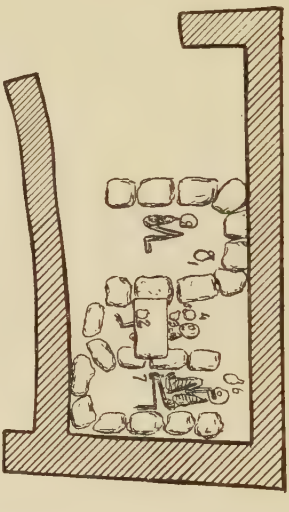
The three remarkable graves represented in Plate I were found in a stratum belonging to the first beginnings of the influence of Mycenaean civilization. Nothing like them has been found elsewhere in the city.

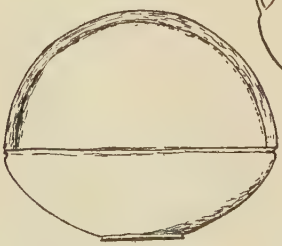
Inside a long and irregularly-shaped quadrangular chamber—the walls of which are represented in hatched lines on the plan—and beneath the level of the beaten earth that formed its floor, were two horseshoe-shaped enclosures, about 6 feet 1 inch long and between 2 and 3 feet broad. The open end of the horseshoe pointed eastward in the one, westward in the other. These two, and a rather narrower space that they intercepted between them, formed three graves, each of them containing a body. There was no evidence that the horseshoe graves had been covered with cover-slabs—if they had, these had been removed by later builders; one cover-slab spanned the grave in the middle, measuring 2 feet 4 inches by 1 foot 3 inches by 4 inches. The depth of the graves was 1 foot 9 inches. They were built of three courses of stones.

The northern grave contained one skeleton, male, lying on the left side in a crouching attitude, the head pointing eastward and the face turned southward. In one corner was the small jug, No. 1—a globular vessel, of fine homogeneous pottery, of a light cream colour, deeply scored with vertical strokes of a burnishing tool; the base flat and projecting very slightly; the mouth channelled or spouted; one handle consisting of two bars of pottery running side by side. This vessel was broken into small fragments by the pressure of the superincumbent earth, as was also the skeleton. The skull was in such small fragments that it was quite impossible to preserve it; before disturbing it I measured the length, 177 mm., the breadth about 140 mm. (about 7 in. by $5\frac{1}{2}$ in.).

In the middle tomb was the body of a boy of about eight years of age. It is curious that the majority of the pottery was deposited with this child. The body was placed in the same attitude as the first, only that it was lying on the right side, so that the face turned northward. With it were placed the following vessels:—No. 2

TOMBS ON THE WESTERN HILL





scale of feet for plan, inches for pottery.

1 0 1 2 3 4 5 6 7 8 9

(under the cover-slab[1] and between the tibiae and the wall of the tomb), a large clumsy globular vessel, with a wide mouth and one handle, in drab ware. No. 3 (in front of the shoulders), a pot without handle, of a brownish white colour, in very gritty ware. No. 3*a* (inside No. 3), a small graceful jug of burnished brownish-red ware, with pointed base, one handle, and long cylindrical neck. No. 4 (just north of No. 3), a bowl, broken, of dull drab ware, with a dark brownish-red line painted on the rim; the mouth is moulded; the upper surface has been grooved and furrowed with the burnishing tool, but the potter has not succeeded in obtaining the effect desired. No. 5, a smaller bowl, also of a dull drab ware, with a similar red line on the rim, was underneath No. 4.

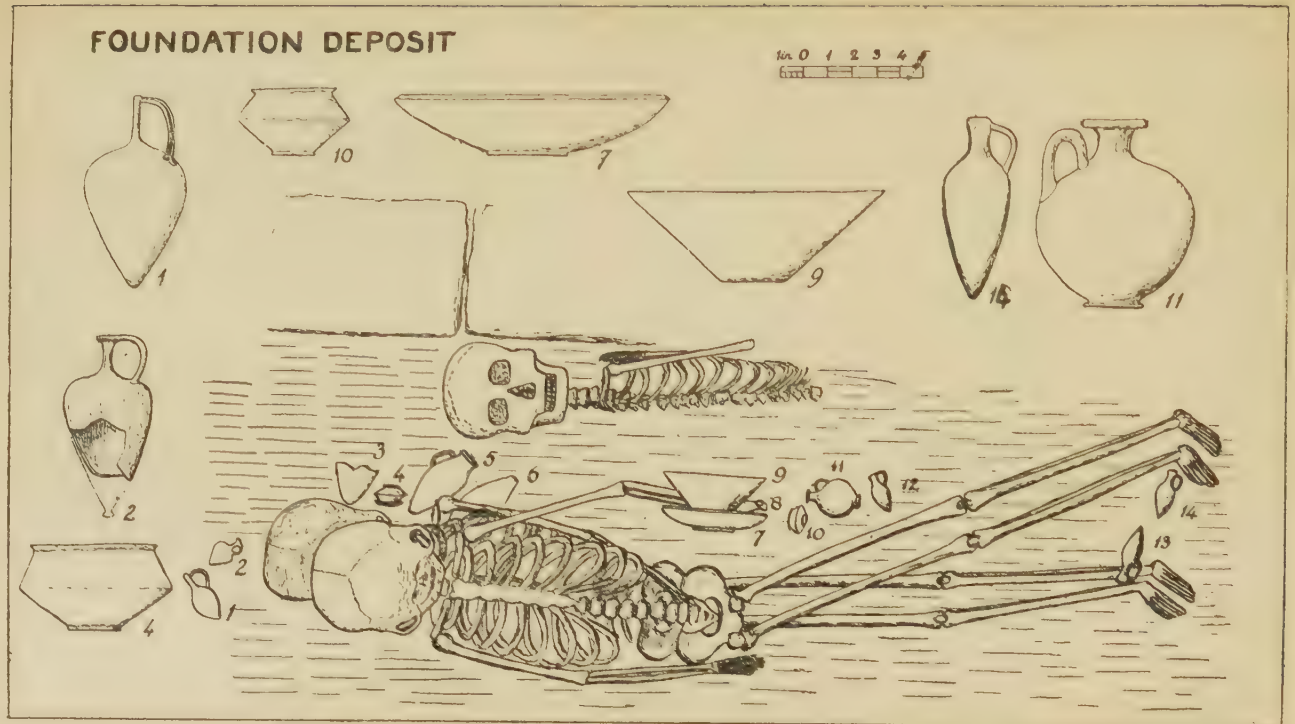
The southern tomb contained the body of a man, but the bones were too far gone for trustworthy measurements to be taken. Like the boy, it lay on the right hand side, facing northward. Two vessels were deposited with it. But the most curious detail of this interment is the following: unlike the other two, in which the knees of the body are drawn up under the chin, the tibiae in this case are bent at right angles from the vertebral column: and, in the rectangular space thus obtained was deposited the complete body of a goat. The hands were drawn up, and the head was resting upon them. The two vessels with this interment were the choicest of the series; both were much broken. No. 6 (near the head) is an oval jug with small flattened base, and one handle, channelled mouth; the ware of a light Vandyke brown colour, with faint burnishing upon it in vertical lines, and adorned with lines in black, or rather very dark sepia, and brownish-red. There is a black line just at the base of the neck, with a red line beside it; then, on the shoulders, a series of short red vertical strokes: after which a black line, five red lines close together, a black line, another black line (double along part of its course), four red lines (the uppermost concealed by the black line next above for part of its course), and finally a black line. No. 7, which was near the knees, is a beautiful vessel in dark coffee-brown ware, burnished with vertical lines. There are two black lines painted on the neck: and, on the sides, two broad bands, separated by black lines, each containing a series of lozenges containing finely painted frets—all in black.

[1] In the diagram on Plate I this vessel is drawn as though resting on the slab. It was intended to draw it in dotted lines, to show it was lying under, but by an oversight this intention was not carried out.

The only built graves with cover-slabs as yet found inside the city have been the group of four Philistine tombs unearthed in the central valley. These, however, differ radically from the graves above described, in date, in the attitude of the skeleton, and in the character of the deposits, though there is one curious point of resemblance, in the burial of a complete food-animal with the deceased, which was found to have been done in two of the Philistine interments. However, it seems hardly possible that the graves now described should be those of Philistines—they are rather too early for the probable period of the Philistine immigration. It is far more probable that we have an unusual type of Canaanite interment.

§ III.—A Foundation Deposit.

The deposit represented in Plate II, which is contemporary with the XIIth Egyptian dynasty, is one of the most striking examples of foundation sacrifice that has come to light. An examination of the plate will sufficiently show the character of the deposit, with but few words of description. Two men were laid at length, on the right side; the feet of the one behind, of the other above, a couple of small jugs, one of them inverted. Around and above the bodies were a number of vessels; the principal pieces are drawn to a larger scale on the same plate. The hand of one of the skeletons was placed in bowl No. 7 (which also contained a small one-handled jug and another bowl, as the diagram shows) as though helping itself to food. Above these vessels was half of the skeleton of a boy of about seventeen years of age who had been cut in two, like the girl of about the same age, whose mutilated body was found in a cistern on the Eastern Hill in the first year of the excavations. The division had been made between the ribs and the pelvis, and (as in the previous case), only the upper part of the body had been placed in the cave. This suggests that the mysterious case of the girl, which has till now been a complete puzzle, was also an example of foundation sacrifice, deposited in an old cistern that happened to be near the building for which a blessing was desired. The skeleton was lying on its back, with the forearms crossed on the breast; the head had fallen sideways. The foundations of the building, which was almost entirely destroyed, were above the deposit, but to the side and not vertically above it.


FOUNDATION DEPOSIT
1
2
4
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It may not be amiss to mention that the drawing of the skeletons in the plate has no end other than to show diagrammatically their attitude when found. The instructed reader will probably detect many anatomical solecisms for which I cry mercy!

§ IV.—Another "Zodiac" Seal.

The opinion of those scholars who considered that the "Zodiac tablet" (as I may call it for convenience) was sealed from a cylinder that belonged to an earlier archaeological context than that in which the tablet itself was found, has received confirmation. A seal of similar type has been found in a much earlier stratum, namely, about the time of the erection of the inner city wall, which I ascribe to *circa* 2500 B.C.

The seal has been impressed with a cylinder, on a lump of black clay that evidently was the stopper of a vessel. Unfortunately it is not so clearly impressed as the first seal; but, on the other hand, the clay is well baked, so that it will be possible to send home good casts, which was out of the question in the case of the tablet.[1] A small piece has been broken from the right-hand edge, but it is possible to restore this partly with the aid of an imperfect impression of the same portion of the cylinder, which is to be seen at the left-hand side.

Commencing at the broken part, and proceeding towards the left, we have first a human figure. The imperfect impression of the same sign towards the left shows that the figure is seated, but it is not clear what it may be seated upon. Beneath is a horned animal, which may (if the signs be zodiacal in character) be *Aries* or *Capricornus*; probably the former, as with *Capricornus* is most likely to be identified an animal with long curved horns, looking backwards, behind the seated figure. The first of these two animals seems to be winged, as is also a more indefinite creature immediately behind it. Above *Capricornus* is a bird, which the seated man is holding in his hand; this, like the bird in the other tablet, is extra-zodiacal. Behind all these is a very conspicuous *Taurus*, with *Amphora* below and *Spica* between the horns. The remainder of the seal was unfortunately rubbed before it was baked, and the few traces of the other signs that it bore are to me unintelligible. The vertical bar like a palm-branch is probably meant to be a divisional line between

[1] [An illustration will be given in the following number.]

successive impressions of the cylinder. On the whole this object, though containing in its design several zodiacal symbols, partakes rather less of the character of a "zodiac" than does the tablet first discovered. It must be remarked that it seems to confirm the conclusion of those who held that the first tablet was not essentially zodiacal in character.

§ V.—Some Miscellaneous Objects.

Among the miscellaneous objects I have to mention[1] :—

(1) A flat tablet of light brown pottery, measuring $4\frac{1}{8}$ inches long by $1\frac{5}{8}$ inch broad by $\frac{3}{4}$ inch thick. It bears on one side the impression of the left foot of a child of about three years of age. That the clay has been prepared especially to receive this impression is beyond question. It is roughly shaped to the outline of the foot and after the impression was made it was carefully baked hard, which would scarcely have been done had the child trodden accidentally upon a chance fragment of earth. The child had had the misfortune to sustain a severe stone-bruise on the sole of the foot; the mark of this injury clearly remains as a small lump on the impression. It is not easy to imagine for what purpose this impression was secured; or rather, it is not easy to choose between a number of explanations that present themselves. Quite possibly it may have been desired to preserve a keepsake of the child itself; after all, we are ultimately dealing not with museum specimens but with human beings, having the elementary human instincts, and it is just to children of the tender age of the owner of this foot that the modern Semitic parents show themselves effusively affectionate. It must be freely granted, however, that, so far as my observation has gone, the conception of the sentimental value of a "keepsake" is wholly foreign to the mind of the modern Arab. Again, the model may have been required by a sculptor or a shoemaker. It is also not inadmissible that the tablet may be an *ex voto*, or may have some magical purpose—possibly enemies of the child's parents desired to hurt them by spells worked on the child.

The object is perfect, save for a slight chip from the upper left hand corner, which has carried away the tips of the three smallest toes.

[1] [Illustrations of Nos. 1 and 2 are held over, with descriptions of a small hoard of ornaments (date of XIIth dynasty or of the Hyksos) and of an olive press.—Ed.]

The only analogy I can recollect at the moment of writing this report, is a scarab in the Cyprus Museum bearing the representation of a footprint; it is figured in the Catalogue of Myres and Ohnefalsch-Richter.[1]

(2) Some embarassment has been caused by the problem of explaining the purpose of small circular holes cut in the sides of vessels near the rim. In some cases, when these are close to the edge of an old fracture, and a second hole appears to correspond on the edge of the adjacent fragment, they are certainly rivet-holes; in others this explanation will not serve, and the hypothesis set forth in Vincent's *Canaan*, p. 313, that they are intended for receiving cords by which the vessel was suspended, is sufficient and satisfactory. This is certainly the explanation of perforated ledge-handles, such as that figured, *op. cit.*, p. 314. But a vessel, discovered this quarter, shows that another purpose is to be sought in some cases. This is a vase, cylindrical, but with an entasis, 9½ inches high. It was found in association with XVIIIth dynasty objects, but looks rather older, and I am inclined to regard it as a chance survival from earlier times. It is of the drab yellowish gritty pottery, the broken section of which resembles thick oatmeal porridge more than anything else I can suggest, that is associated with the First Semitic period. It is hand-modelled, not wheel-turned. The rim slopes obliquely inward so as to receive a flat disc of pottery as a cover for the vessel. From the middle of the lower surface of this disc a flat tongue projects, with a perforation through it, corresponding exactly with two similar perforations through the side of the vessel itself, just below the rim. The purpose of these perforations is perfectly clear. They are evidently meant to receive a rod running through them, by which the cover was kept from falling from its proper position. It is satisfactory thus to arrive at a complete and simple solution of a long-standing puzzle. The "suspension" theory is by no means ruled out even in such a case as this; for the cord might be, and probably was, tied round the projecting ends of the rod. This is the more likely as the vessel possesses no handle of its own.

[1] Compare, however, the footprint cut on the wall of the cave described later in this report. Rudely-cut models of feet (not prints) have been found from time to time in the excavations. The table of offerings figured in Vincent's *Canaan*, p. 251, is not unlike two conventionalized footprints, side by side.

(3) In the excavation of Megiddo a fragment of a fine Egyptian incense burner, in pottery, was found; it is figured in Vincent's *Canaan*, p. 181 (after Fig. 17 in *Mittheilungen und Nachrichten* of the *D.P.V.*, 1904). The Megiddo example consists of the cup at the top, and a capital consisting of two bands of pendant lotus

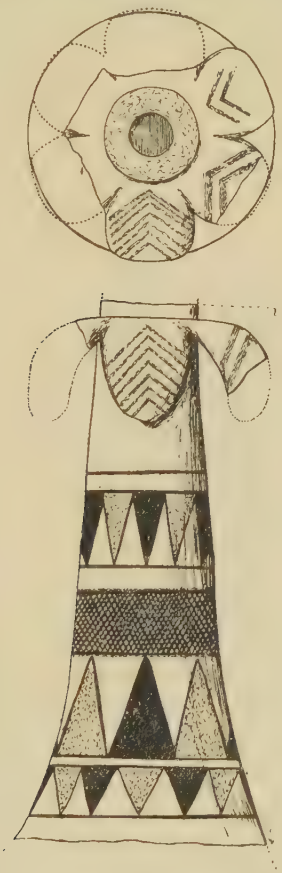


FIG. 2.—Egyptian Incense Burner.
(Present height 7⅞ inches.)

leaves. An analogous object was found during the last quarter at Gezer, in débris of about 1000–600 B.C., and is represented in Fig. 2. It consists of the stem and one row of lotus leaves; the base and the top have both gone. Besides the fractures of the

upper and lower ends, the object is much injured. Nearly all of the six pendant lotus leaves that surround the present top are wholly or partly broken away, and the whole surface is covered with a cream-coloured wash, on which the coloured decoration was applied, and this, not being impervious to damp, has nearly all perished. Indeed, though the scheme of decoration is very simple—simpler, apparently, than in the Megiddo example—it needs very close study to make the pattern out. The colours used are black

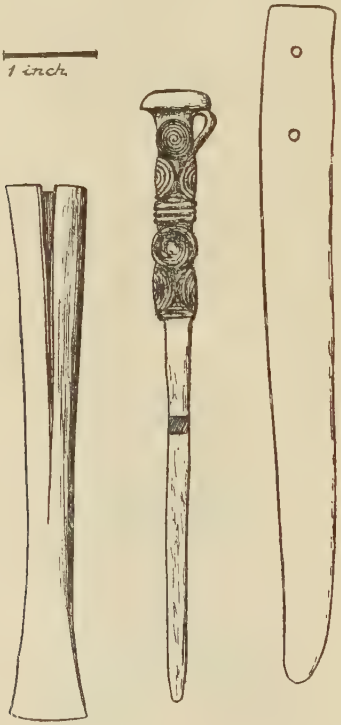


Fig. 3.—Miscellaneous Bronze Objects.

and a dull brownish-red, the latter is represented in the diagram by dots. Black lines are used to divide the field into horizontal compartments, but above and below the band of fret-pattern in the middle a red line is added along side of each of the black lines. In the bands of triangles the colours alternate, but the red triangles are always edged with black. Apparently all the lotus leaves were

ornamented with red chevrons, but only one of these preserves the decoration complete. The present height of the object is $7\frac{2}{3}$ inches.

(4) Worthy of passing notice are three fine bronze objects, dating about 1450 B.C. One is a socketed chisel, the other a knife with rivet holes for hafting. Specially interesting is the fine and, so far as Gezer is concerned, unique pin, with a square shank and a head elaborately ornamented with spirals in alternating bands, separated by raised groups of ridges (Fig. 3). The head is flat and expanding, and slightly undercut. There is a loop at one side, doubtless to receive a chain or cord by which this valuable object was secured from accidental loss.

§ VI.—A Cave with Rock-Scribings.

The discovery now to be described ranks among those of the highest interest that Gezer has so far yielded. Several caves have been opened during the past quarter; one of them was a very early place of sepulture. Another had the floor covered irregularly with cup-marks, and, in the middle, a great slab of stone also bearing a small cup-mark. When this was raised it was found to cover a shallow well, from which a series of three small circular chambers, one behind the other, opened out. Notwithstanding the care with which these chambers had been closed, they were quite empty, which was rather disappointing. For the present it is unnecessary to say more about these excavations. But a cave which was close by the second of them, and due west of the mouth of the great tunnel, calls for careful description. This cave is hollowed in the rock under a depth of about 30 feet of débris, containing eight strata. Of these, three are subsequent to the destruction of the inner city wall, about 1450 B.C., three lie intermediate between that date and the erection of the same wall, about 2500 B.C., and two are earlier than the wall referred to. Assuming a uniform rate of accumulation, this leads us back to somewhere between 3200 and 3500 B.C. as the minor limit of date for the cave now to be described. The line marked "Limit of Excavation" on the plan (Fig. 4), shows the side of the pit containing the cave. It will be impossible to extend the excavation westward till after the harvest, which as I write is imminent. The place chosen for the cave is the south end of a knoll, which rises fairly steeply to a height of about 3 feet above the adjacent rock. Just south of the entrance of the cave there is an appearance as

though rude steps had been cut to make the ascent of the knoll easier: but I am inclined to think these natural.

The following cuttings surround the mouth of the cave. They are indicated by reference letters on the plan. (A) A hollow (only half excavated) scarped in the rock to a depth of 18 inches, 7 feet in diameter. At the south side the rock fails, and its place is supplied by a row of three stones set on edge (with probably more beyond the limit of excavation) completing the circle. A wall is built over this hollow, set back a little behind its edge all round, to a

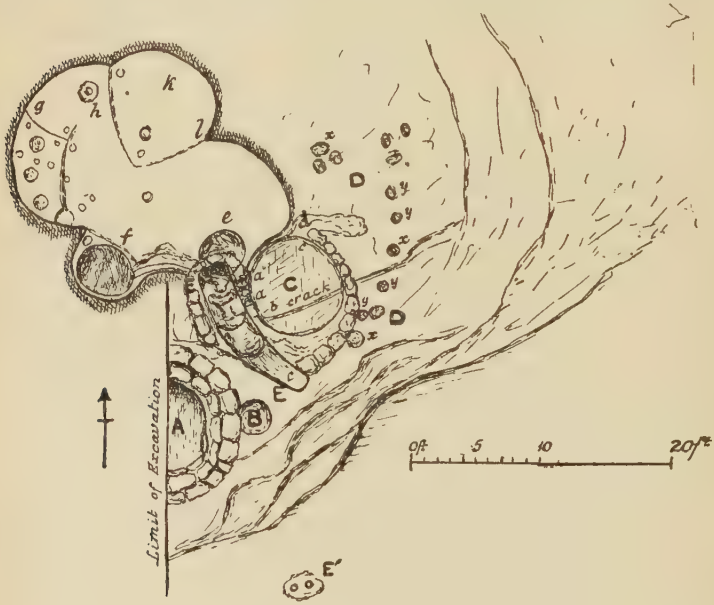


FIG. 4.—Plan of Cave containing Rock Scribings.

maximum height of 3 feet above the rock. (B) A hollow, 2 feet deep and 3 feet 3 inches across, with vertical sides and rounded base. This lies partly under the wall that surrounds A, indicating that the latter was built subsequently. (C) A hollow, circular, 6 feet in diameter, and of a maximum depth of 1 foot below the level of the rock. At *a a* the rock fails, and its place is supplied by masonry. At *b* it rises to its maximum height above the bottom of the hollow, so that the space *a b* appears to be a channel. This appearance, I think, is accidental. A curved wall, *c c*, partly surrounds the

hollow, but does not follow its contour exactly. Owing to the irregularity of the rock contour there is an appearance at *d* of another channel leading into, or out of, this hollow. This also I take to be accidental. A crack runs across the hollow from west to east. As it reappears outside the hollow to the east, disappearing on the edge of the rocky knoll, it is probably a natural flaw, not impossibly caused by an earthquake. (D) A group of cup-marks, thirteen in number; those marked *x* are shallow circular basins, with breadth greater than the depth; those marked *y* are also circular, but with the depth greater than the breadth. The others are oval depressions. Beside these there are two conspicuous cups (both similar to those marked *y*) on a small knob of rock south of the knoll containing the system under description, they are marked E[1]. The largest of these cups is the southernmost of those marked D, which is 2 feet broad and 9 inches deep. The diameter of the others ranges between 1 foot and 18 inches. The deepest cup is the cup marked *y*, next to the southernmost, immediately under the wall surrounding the hollow C. This is 14 inches deep. The entrance to the cave is marked E, E. This is a long narrow opening in the rock. Round the northern end rude masonry is built, as the surface of the rock is not of the required height. The floor of the entrance slopes downward, and access to the cave is gained by very rude steps—little better than footholds—cut in the rock.

The outline of the cave itself is represented on the plan by a hatched line. It will be seen to be oval, with a series of irregular apses round the sides. On entering, the most conspicuous feature are two deep hollows, one on each side of the entrance staircase: the first of these, marked *e* on the plan, is 3 feet across and 1 foot 10 inches deep: this is just under the entrance, and in fact is partly cut out of the staircase. The second, marked *f*, occupies an apse to the left of the staircase. These hollows are evidently meant to intercept rainwater, and prevent it flooding the cave; the second, *f*, is connected with the staircase by a channel, cut on the top of a projecting shelf of rock. It is 3 feet 11 inches across and 3 feet deep. The apse, *g*, at the inner end of the cave has part of its floor raised 10 inches above the floor of the cave: and this raised step bears three shallow cups measuring 10 inches to 1 foot across, with five smaller hollows, disposed as shown in the diagram. There are also seven other cups in this part of the cave, one of them, *h*, a double cup, of maximum diameter, 1 foot 9 inches. The floor of

ROCK SCRIBINGS
1
2
3
4
0cm 1 2 3 4 5 6 7
0in 1 2 3

the apse, *k*, is *sunk* 10 inches below the level of the floor of the cave. It contains three cups. There is, in addition, one cup almost in the exact middle of the cave area. The total length of the cave is 18 feet 7 inches; the height is, with fair uniformity, 5 feet 5 inches. There is a tether-hole cut through the projecting angle *l*.

We now come to the feature that gives this cave its unique interest and importance. To a height of about four feet above the floor the walls are rough. Above this, however, there is a frieze of smoother rock, and all round the cave this frieze is occupied with rude scribblings; a few similar scribblings are also to be seen on the roof. These scribblings are of three kinds: (1) arrangements of lines, grouped apparently at random, though in some they cross vertically and horizontally as in a draughtboard; (2) arrangements of circular dots, nearly all reducible to one scheme—a square of four, or a row of three dots, with a circle of dots surrounding them; and (3) drawings of animals. Most of the latter are childish attempts—a rectangle with four strokes below and one above, to denote body, legs, and head respectively; but some show much more advanced skill, as the specimens illustrated on Plate 3 will indicate. Of these, the two marked 1 are just on the south side of the cusp *l*; the two marked 3, 4, are in the apse *k*; and the footprint (2) on the cusp dividing *k* from *g*. This (for reasons of space) is here drawn to half the scale of the other figures. It is the only attempt at illustrating any part of the human body in the cave. The rest are all figures of quadrupeds—when recognisable, cows, and perhaps stags and buffaloes—with one exception, which is close to the "footprint." This drawing is $5\frac{1}{4}$ inches long. Possibly it may be a crude attempt to represent the very common black millipede which is to be seen in thousands all over Palestine, and is, indeed, by its very commonness, one of the most conspicuous types of Palestine fauna. A drawing of it will be found in Clermont-Ganneau's *Archaeological Researches*, to illustrate, if I remember aright, some interesting speculations on its modern Arabic name.

These drawings, whatever their origin, are beyond all question the oldest works of art that Palestine has yet produced. They strangely recall the Palaeolithic sketches that have been found in various places; but I hesitate to commit myself to the theory that they are actually of a date so remote, although there is plenty of evidence for the existence of Palaeolithic man within five miles of Gezer. Casts, and a complete set of drawings and photographs will

be sent home for study as soon as possible: and, for the present, judgment may be suspended regarding them. There is, however, one lesson that they teach most emphatically, which we need not delay in learning—that there is absolutely no limit to the possibilities of surprise that the mound of Gezer has in store, and that it is the duty of all concerned to take the fullest advantage of the fast-waning permit.

THE GEZER TUNNEL.

By the Rev. Hugues Vincent, O.P.,

École Biblique et Archéologique, Jerusalem.

The Palestine Exploration Fund wins honour and gratitude, as much for its prompt communication of the chief results of the excavations as for the zeal with which these are pursued. Thus it is with the great tunnel discovered at Gezer in the Autumn of 1907, an account of which is given in the January number. This account is supplemented by a postscript, dated 30th November, announcing that the tunnel ends with a spring, which appears to have been, if not its only, at least its *principal* purpose; and, Mr. Macalister concludes: "It appears as though the excavation is less important than its imposing nature at first gave grounds to expect" (p. 25). On the other hand, I, for my part, am tempted to assert that the tunnel, in consequence, exceeds the original expectations, and I propose to state my reasons for my belief.

In the course of a visit, in company with my colleague, Father H. Pope, then in Palestine, I had the pleasure of examining the first section of the tunnel when it was exposed, and both of us were much struck with the imposing character of this gigantic passage hewn out of the solid rock. The novelty of the thing, its mysterious nature, and the problem of its destination, naturally conspired to emphasize our first impressions. Even comparisons with analogous works did not diminish the astonishment we felt; and now that the object of this great enterprise has been discovered, Mr. Macalister's

cautious observation becomes very intelligible: "It is difficult to describe this entirely unexpected addition to our knowledge of ancient Gezer without appearing to exaggerate; it has to be seen for its full imposing effect to be appreciated" (p. 17).

The minute details which have been furnished, the illustrations and the plans, will allow engineers, artists, and all specialists to form an exact idea of the physiognomy of the tunnel. The hasty reader, on the other hand, more familiar with the deductions drawn from archaeological details than with the latter themselves, may perchance see there merely a hole, and may not reflect that the new discovery surpasses in importance, and even in religious interest, those that have hitherto been made in Palestine. Mature reflection only increased the exceptional importance which I had first attached to the tunnel, and, after a fresh examination of the tunnel as it lay completely exposed, I could not resist offering my warmest congratulations to the Fund. I have had frequent occasion elsewhere to express my indebtedness both to the Fund and to the courtesy which I have experienced at each visit to Gezer, and it goes without saying that, in these few remarks, I have no desire to usurp Mr. Macalister's rôle in describing the works.[1]

The brief hour in my second visit was devoted not so much to any technical examination as to a more precise survey of the general arrangement of the tunnel, its artistic aspect, its archaeological import; and, while the impression which I acquired at my first visit became more emphasized, I do not find myself disposed to imitate the admirable reserve with which Mr. Macalister himself has spoken of his discovery.

It is unnecessary to repeat the material facts which will be found in the *Q.S.* for January, pp. 13 *sqq.*, and April, pp. 96 *sqq.*, or to discuss anew points which Mr. Macalister has already handled. The tunnel was made under the influence of utilitarian circumstances. It is straight, so that the light can penetrate; the cavities in the walls are placed at about the right height to serve as hand-grips, and everything indicates that the work was so contrived as

[1] I should specially mention the rigorous scientific method of research with which the work at Gezer is conducted—a feature which can best be realised by those who have seen the actual conditions, the mass of débris, etc. It is evident that the permit will not allow an exhaustive excavation of the mound, but it is no less evident to anyone who has followed the excavations since 1902 that the area which has been overturned has yielded all its archaeological store.

to ensure a supply of water for the fortified city without the necessity of going outside the ramparts. Some of the lateral hollows in the wall would serve preferably to hold lights, or, it may be, to contain some image of a tutelary deity or a religious emblem. The recess, near the top—somewhat after the fashion of a sentry-box—may have been intended for a halting-place. On the other hand, it is not impossible that some of the less regular hollows are simply due to the unevenness of the cutting, to the removal of flints, to the hardness of the rock which defied the tools.

It is necessary to insist once again upon the imposing view which the tunnel offers as one gazes along its entire length. One has only to observe the enormous volume of rock to marvel at the time and labour which this great construction must have involved. Why was it at this place in the Tell that water was sought?[1] Why was not the task simplified by sinking a vertical shaft? The obvious questions find their obvious answers. Time and labour were of little account among the ancients. They did not calculate with the precision of modern contractors the duration of a work, its public utility, the cost of labour, or the most economical methods of procedure. When any considerable enterprise was to be undertaken, the *corvée* was raised, and the whole country was called upon. Long years would pass, and legions of workmen—by persuasion or by force—would build a Babylonian palace, an Egyptian pyramid, or a temple in Jerusalem. Some times whole generations would pass, the architect not being troubled about the time and labour necessary for the realisation of his plan. Once the work was completed, what mattered these long years, or the thousands of obscure lives which it had cost?

But how did the idea arise of seeking a spring? Many features—some peculiarity in the soil or the result of some observation—may have suggested it. Or at some remote period, such as that to which the creation of the tunnel points, a bubbling spring may have been seen upon the southern slopes of the Tell below the exterior rampart. The survival of a local *tannûr* (bubbling spring) of the "deluge" in the folk-lore of Gezer would well suggest that such a source existed not far from the ancient wall near the mouth of

[1] The tunnel simply leads to the spring; no other purpose is implied by its structure, and the idea of an access to a sacred cave, a secret exit, and the like is contradicted by its character.

the tunnel.[1] Consequently nothing is more simple than to suppose that the attempt was made to reach the presumed level of this spring, whether they made allowance for it in opening the passage, or whether they had any suspicion of a lake at this level.

Again, the notion of sinking a vertical shaft was scarcely customary in ancient usage. It was certainly known, but when it was required to procure, as in this case, the necessary supply of water for the town in case of a siege, it was naturally preferable to construct a large tunnel, which allowed easy access, rather than a vertical shaft where the mechanical labour would obviously be more difficult. Besides, if the engineer who directed the enterprise suspected the nature of the rock and the limestone strata, the oblique rather than the vertical method may have been preferred on technical grounds. Again, whatever machinery was at his disposal, it is easy to see that, if the vertical shaft would have required fewer labourers, special serious difficulties would have been involved in the labour of a well which would necessarily be small, which would with difficulty be hewn, dangerous to the workmen, and open to the risk of encountering some fault or irregularity in the stratification, etc., etc.

Now, it is clear that economy of labour did not trouble the engineers of old, and this, I think, affords the most probable and the easiest explanation of the fact that a magnificent tunnel should have served simply as a pathway to the water inside the walls of Gezer. It is useless to discuss whether the lower chamber is an artificial cavern or a natural one; the latter, however, is more conceivable, as appears from the soundings (see p. 98). It is not impossible that some other passage led down to this cavern, but this conjecture is unnecessary; such great works were not undertaken without urgent necessity, and there would be no object in multiplying the tunnels.

The true archaeological importance of the tunnel is revealed when one comes to consider its date. Mr. Macalister's discoveries in course of excavation and his untiring observations have led him to the view that the mouth of the tunnel must have been obstructed and the existence of the tunnel itself lost to view towards the thirteenth to twelfth centuries B.C. It is the troubled epoch upon

[1] This interesting problem cannot be pursued here, and one will look forward to a treatment of it in the final memoir. It has already attracted Mr. Macalister's attention, *Q.S.*, 1903, pp. 216 *sqq.*, *cp.* p. 322.

which the Amarna letters have brought us information, an epoch, too, which the Bible to some extent unfolds to us when it records how the Hebrew conquest substituted new inhabitants in the place of those populations grouped under the title of Canaanites. From various facts, and in particular from the wear and tear of the steps in the tunnel, Mr. Macalister infers an interval of four to five centuries, perhaps more, between the time when the passage was first put to use and the day when it was closed. Thus, one is brought to a date between the eighteenth and twentieth centuries B.C. for its execution, a date in the Canaanite period of Palestinian history before the restless Egyptian conquests under the XVIIIth dynasty.

This date is an historical revelation greater, perhaps more precise, and in any case no less interesting than the discovery of any small library of cuneiform tablets. Ever since the el-Amarna letters gave us documents on the history of Bible-lands between the fifteenth and twelfth centuries B.C., the hope of seeing the pick-axe bring to light some additional tablets has continued to haunt the apologists and those who subscribe to the excavations. Those who would not think it extravagant to appraise an archaic Hebrew seal at 50,000 francs, or who would gladly double their annual subscription on receiving a guarantee that their liberality would unearth a cuneiform tablet or the fragment of some ancient inscription, would scarcely even examine the immense interest attached to a discovery whose significance for the history is not less than that of many an epigraphical find. One, two, three, even ten tablets of the el-Amarna age unearthed at Gezer—a chance which could happen any hour in the course of excavation—would, under the most favourable circumstances, give us new information upon the social organization and the contemporary political situation. But this tunnel takes us back centuries in the history of the land. Ingeniously conceived and artistically executed, this colossal passage has a lengthy history to reveal to him who will listen, and the recovery of this secret from the ruins of Gezer would be a sufficient recompense by itself for all the labours of the Palestine Exploration Fund, though these have already been rewarded by the high-place, the caverns, and the admirable specimens of pottery.

In short, the history which the tunnel has to tell us is this. Between the twentieth and eighteenth centuries B.C. a dense, active, cultivated and quiet population lived upon the hill of Gezer under the powerful protection of those walls which Mr. Macalister with

his usual skill has recovered. The complicated art of defence had already been indicated by the fortifications, and the tunnel now proves that contemporary engineers possessed a boldness and a capacity which their colleagues of to-day will scarcely disallow. Obviously we are far from the centuries of barbarism, and thus the discovery impinges upon those religious problems with which modern thinkers are occupied.

A thousand details have brought to light the religious practices of the Canaanites, but it is still difficult to assort them chronologically: to evolve the religious conceptions which have inspired them: to trace the historical evolution of religious thought to the days when the Hebrew conquest introduced that new and fruitful element—the Divine Revelation. In order to penetrate these primordial conceptions, the students of the history of religion have more or less philosophical theories in which they introduce the observed facts. When Canaan is under consideration—a land where the documentation begins with the brilliant researches of the Palestine Exploration Fund—these writers have described the ages immediately before the Hebrew conquest as "primitive," "uncivilised," etc. But it is necessary to repeat with all possible insistence in order that the most indolent mind be aroused, that at the eighteenth century B.C. the Canaanite population in such centres as Gezer had reached a remarkable stage in the conquest of civilisation. It matters little that a short while ago this age was dark and obscure; *now* the happy labours of the excavators have dissipated the shades. Surely it must be thoroughly evident to every unprejudiced mind that the moment an engineer could reason out the plan of the tunnel of Gezer, a contemporary of his could set his brain in motion and evolve some religious ideas, more simple no doubt than the philosophical systems of to-day, but very superior to the rudimentary impressions, to the foolish terrors, and to the ingenuous enthusiasm with which "primitive" peoples are credited. It would be easy to develop this subject further, and to show those who betray anxiety in the face of apologetics or of religious speculation that the recent discovery at Gezer ought not to be indifferent to them. But the readers of the *Q.S.* are too enlightened to need any more detailed account of the very varied aspects in which the importance of the tunnel may be viewed.

So long as it is possible to feel any hesitation touching the destination of this subterranean passage, analogies may be sought

in various quarters. For example, in the hypothesis of a secret exit, or rather a fortified subway, one immediately recalls the tunnels at Kerak, the old Moabite capital, and the famous *souterrains* which traverse the ramparts of the Hittite Boghaz-keuï.[1] The hypothesis of a descent to some sacred cavern could be justified, for example, by the celebrated Dictaean cave of Crete, where the deepest cave, full of water, is nearly 200 feet below the uppermost, and the two are united by a rough staircase.[2] Accordingly, since we have to deal with a purely and exclusively utilitarian construction, it is in another direction that we must look for parallels. Here, too, the learned may invoke numerous parallels, since, I suppose, the large Assyrian tunnel, discovered and described by Layard, down to the great subterranean conduits prepared under the Roman Empire.[3]

Far more topical analogies are furnished by Canaan itself, and the tunnel of Gezer may one day illuminate the most famous of topographical problems: the situation of early Jerusalem of the

[1] The tunnels of Kerak are hewn in the rock, but almost horizontally. They struck early explorers, and have been well described by Tristram, *The Land of Moab*, p. 73. They are registered in the plan by M. Mauss, published in the Voyage of the Duke of Luynes. Those at Boghaz-keuï offer a closer analogy through their inclined arrangement against the slopes of the hill, but they are not hewn out of the rock. See Humann and Puchstein, *Reisen in Kleinasien*, p. 74 *sq.* and Plate xiv.; Perrot and Chipiez, *Hist. de l'Art*, IV, pp. 620 *sqq.* (figs. 304–8); Puchstein, *Mitteil d. deut. Orient-Gesellschaft*, no. 39, 1907, p. 68. The analogies in oriental architecture could be easily supplemented from the occidental world.

[2] Hogarth, "The Dictaean Cave" in *Annual of the Brit. School at Athens*, VI, pp. 94 *sqq.*, and pl. viii.; *cp.* Lagrange, *La Crète ancienne*, fig. 23. But this is a natural cavern summarily united by some steps across the escarpment. It is very different from the great artificial passage of Gezer, not to mention the fact that the innumerable and unmistakable traces of religious significance in the Dictaean cave find nothing analogous either in the tunnel or in the subterranean chamber of Gezer.

[3] See Layard, *Nineveh and its Remains*, I, p. 80 *sq.* (the tunnel dates from the first Assyrian dynasties, that is to say, about the fourteenth to the thirteenth century B.C.). For the Roman systems, see, for example, G. de Montauzan, *Nouvelles Archives des Missions Scientifiques*, XV (1907), pp. 71 *sqq.*, on the Roman aqueducts, especially pp. 84 *sqq.*, figs. 2-7: the conduct of Zaghouan in Tunic. Everyone knows the hydraulic works in the classical lands: at Athens, Corinth, and Samos. Some remarks on the subject are collected in Perrot and Chipiez, *op. cit.*, VIII, 23 *sqq.* The long and beautiful tunnel connecting two valleys of Petra, recently noticed by M. Musil, *Arabia Petraea*, II, 1, pp. 53 *sqq.*, is apparently of Roman age and influence.

Jebusites. We may put on one side the horizontal tunnel which runs east and west across the hill known generally as Ophel, and which dates in all probability from the reign of Hezekiah. But everyone will remember the system of canals discovered and boldly explored by Lieut.-Gen. Warren[1]; and a connexion between this subterranean communication from the city to the well and the *ṣinnôr* of 2 Sam. v, 8 ("watercourse") has long presented itself to acute minds. But it is not so easy to determine its relation to the tunnel of Hezekiah. A minute examination, however, may show that it is anterior, although in this case there is nothing to show positively that it dates from before the Israelite conquest. Archaeologists, reduced to speculate without any basis upon the degree of culture attained by the Canaanites, may think it a paradox to attribute to the predecessors of the Hebrews a construction superior to that which the Hezekiah's engineers subsequently realized, and I believe arguments to this effect have been brought against the theory which the Rev. W. F. Birch proposed.

To tell the truth, such a hypothesis would seem somewhat gratuitous so long as it remained unsupported by any analogy. A similar installation had certainly been discovered at Gibeon in 1890[2]; but no one seems to have thought of turning it to account, although for years past in my courses at the *École Biblique* I have had many occasions to point out and emphasize its importance. But as the work of methodical excavation progressed, it became more and more clear that the old Canaanite cities covered very small areas, and were generally set upon a hill protected by valleys, and always in proximity to a supply of water. The necessity of providing water in case of siege explains in the most natural manner the subterranean communications laboriously planned between the summit of the city and the spring outside the city ramparts, whether at Jerusalem or at Gibeon. Consequently, I did not hesitate in my recent work (*Canaan d'après l'Exploration Récente*, p. 27, no. 1) to attribute the *ṣinnôr* to the Jebusites of the fifteenth to the eleventh century B.C. at Jerusalem. The tunnel at Gezer of the twentieth to the eighteenth century B.C. now furnishes proof that the Jebusites

[1] The "vertical channel of Ophel," see *Recovery of Jerusalem*, pp. 248 *sqq.*, and the cut facing p. 248. If I am not mistaken, the Rev. W. F. Birch was the first to establish a connexion between this channel and the *ṣinnôr*. See *Q.S.*, 1885, p. 62.

[2] Schick, *Quarterly Statement*, 1890, p. 23.

were capable of excavating the vertical shaft of Ophel, and there is nothing which can be brought against the view that this construction, which is anterior to that of Hezekiah, should be attributed to them.

Its situation easily explains the Biblical narrative, in spite of the uncertain state of the text, and as one becomes impressed by the analogy between Canaanite Jerusalem and all the contemporary cities, one gains strong and positive proof that the site of the Jebusite fortress (the primitive Zion) was upon the small eastern hill before the Israelite conquest, until the glorious reigns of David and Solomon developed and transformed the famous city.[1] One could scarcely have expected the trenches of Gezer to bring to light a revelation of this character, and it is unnecessary to dilate further upon what is a very objective fact. Those savants who apply themselves to the topography of the Holy City—and they are numerous in England—will be better able than myself to develop the consequences of the facts which have been indicated, and they will scarcely fail to have a new appreciation for the admirable labours pursued at Gezer. There is, moreover, yet one more detail which shows another interesting point of view which is well worth studying.

The equation which we have just established between the tunnels of Gezer and Jerusalem which lead to the springs, on the one side, and the biblical "watercourse" (*sinnôr*), on the other, suggests an equation between the *ṣinnôr* of Jerusalem and the *tannûr* of the Arab legends at Gezer. Since the fruitful researches of M. Clermont-Ganneau in 1873[2] a quantity of the folk-lore has become familiar, and I do not think that I shall be indiscreet in stating that Mr. Macalister has collected new elements which will be made known later. These legends refer to the Deluge, which is supposed to have begun and ended in the district of Gezer: gushing forth from a hole (*tannûr*) into which it ultimately re-entered.[3]

I can only refer to one detail—the relation between the two words: the Hebrew *ṣinnôr* and the modern *tannûr*, which cannot be

[1] It is not to be ignored that there may be some literary amplification in the account of the capture of the impregnable fortress by Joab. One can collect several classical examples of cities seized by means of subterranean tunnels, *e.g.*, the capture of the *Palladium* of Troy, commemorated in the celebrated text of Servius (*Commentary on the Aeneid*, II, 166).

[2] *Archaeological Researches in Palestine*, II, pp. 239 *sq.*, *cp.* 456, 480, 490.

[3] In the spring of 1900 I heard a curious story which associated Gezer with Ramleh (see *Q.S.* for April, p. 105).

philologically equated. But the use of the latter in folk-lore to designate something which seems to correspond closely with that meant by the former, will suggest the possibility of tracing a relation between them in another way. *Tannûr* is a well-known and precise word which means an "oven." But this is scarcely in harmony with the legends of the deluge—the *tannûr* vomits heat and flame, it cooks the bread; in the folk-lore, on the other hand, it vomits forth the waters which submerge the earth, and then absorbs them again when the deluge ceases! It is natural to remember that these legends did not originate among Arab circles: they are presumably derived from the Syro-Aramaean peoples, from whom also the word has been taken over in its present form. This, however, does not remove the difficulty, since both Aramaic and Hebrew furnish no other meaning for the word than "furnace," and one is inclined to suspect that the use of *tannûr* to denote a bubbling spring has arisen from some Aramaic transformation which can no longer be exactly traced.[1] If we turn now to see how the Syrian versions render the famous *ṣinnôr* of 2 Sam. v, 8, we are at once struck with their uncertainty, and it is scarcely surprising that amid their attempts no connexion with *tannûr* can be found. The subject, however, is too minute to be pursued further, and I would simply indicate the *possibility* of some relation between the meanings of the two words in the Syro-Aramaean circles. At all events, Prof. Clermont-Ganneau has long drawn attention to the Arab stories of the deluge and their connexion with very old local (and especially Aramaean) deluge myths, where some fantastic gulf or chasm is in question.[2] This brings us at once to the excavations in the heart of the hill—to the *ṣinnôr* of Jerusalem and the *tannûr* of the popular legends at Gezer, and thus, whatever may be the case in regard to the equation of the names, there is apparently a solid connexion between the things to which they are applied; and this, I think, is one of the happiest results of the discovery of the tunnel at Gezer.

These remarks are far from exhausting the varied points of interest of this admirable find, but they will at least suffice to show

[1] A curious example of the literal interpretation of the word in a text relating to the deluge is given by Clermont-Ganneau, *Recueil d'Archéol. Orient.*, vi, 103. In Aramaic the word *tannûrâ* also seems to have the meaning "cuirass"—apparently through some foreign (perhaps Persian) influence.

[2] *Arch. Researches*, II, p. 239; *Recueil d'Arch. Orient.*, vii, p. 46.

every thoughtful mind that it is an archaeological fact more fruitful than many an epigraphical discovery, and that its apparently banal intention is really the true reason of its supreme interest. If we suppose, for a moment, that the tunnel had a sacred purpose, the whole thing at once becomes a mystery—food for imaginative reconstruction. One has to guess why there was a spring in the cave, why no religious symbols have been found, what religious ideas could have occasioned the work, what cult was practised, and a hundred other questions to which the facts allow no positive answer; not to mention the difficulty of bringing such a place of cult into harmony with what is already known of the contemporary religion of Gezer. Besides, there is something anomalous in the suggestion that a sacred cave and, consequently, mysterious practices were at the end of so monumental a passage as the tunnel. Had it been proposed to give access to some place of chthonic worship, the narrowest possible passage would have been preferred, less light would have been allowed to circulate, and the passage would have been crooked.[1] Thus, in the hope of enhancing the character of the tunnel it would really be diminished, and its nature would remain enigmatical and unintelligible. Quite otherwise, as we have seen, is the interest attached to it through the simple, practical, and utilitarian interpretation which has been proposed.

Brilliant, indeed, is the light which has been cast upon the development of Canaanite culture between the twentieth and the eighteenth century B.C. by the fact that sufficient technical knowledge was possessed for the execution of a work whose sole object was to provide for the supply and for the security of a city otherwise intelligently fortified.[2] By an easy deduction it furnishes a

[1] *Cp.* the communicating passage between the two troglodyte caves, to form an *adytum*, in the high-place (*Q.S.*, 1903, p. 24 *sq.*, and plan facing p. 20).

[2] To appreciate more precisely the true value of the revelations from Gezer and other excavated sites, it is sufficient to observe the extent of our earlier knowledge when so competent an historian as M. Perrot could state (*Hist. de l'Art: Judée*) that at the time of the Israelite conquest military engineering was not known. It will henceforth be more correct to say that the Jews at the most brilliant period of their history perhaps never achieved fortifications more ingeniously conceived or more cleverly executed than those of the Canaanites, who inspired them with so much terror on their arrival in the land (Num. xiii, 28, Deut. i, 28, etc.). I may add one other example, and that a topical one, of the importance of the tunnel for biblical archaeology. Dr. Benzinger, in his recent new edition of his *Hebräische Archaeologie* (1907), gathers from the excavations at Megiddo and Taanach that in the erection of a fortress the lack of

happy solution of that obscure problem—the "watercourse" of Jerusalem. Further, it is, as Mr. Macalister has justly observed, a very suggestive element in the study of the famous caves of Beit Jibrin (*Q.S.*, p. 17). Here, then, is enough to justify both the admiration which this magnificent discovery evokes, and the immense interest which is attached to every new revelation for the history and the archaeology of the Bible produced by the successful and scientific excavations at Gezer.

NOTES OF A VISIT TO ENGEDY, MASADA, AND JEBAL USDUM.[1]

By Dr. E. W. G. Masterman.

The last week of last January I had the privilege of accompanying Prof. Francis Brown, of the American School of Archaeology, and two of his students, to a comparatively little visited part of the western shore of the Dead Sea. As the places visited, *'Ain Jidy*, *es Sebbeh*, and *Jebal Usdum* have not been referred to in the *Quarterly Statement* for many years, a short description may be of interest, while a few travel notes may be of use to any who desire to visit these deeply interesting spots.

It is essential to make this excursion in the coolest winter months. M. de Saulcy went early in January (1851); Canon Tristram in the latter part of January (1864); Lieutenant Van de Velde was there at the end of March (1852), but he complained much of the heat, and he and his whole party suffered much from

water was not considered (p. 32). But these excavations were only soundings or partial, and are insufficient to authorize a decided assertion. In any case, up to November 30th, Gezer could have been included among the examples cited. Now, however, the existence of the tunnel descending to the spring at Gezer could even allow the belief that there were similar installations at the incompletely excavated tells of Taanach and Megiddo; and it seems very evident that the care of providing water in times of peace, as on the occasion of a siege, was one of the most essential cares of the old Palestinian engineers. Thus, the tunnel has something to teach us even in the department of Biblical archaeology.

[1] The photographs illustrating this article were taken by Professor Francis Brown, of the Union Theological Seminary, New York, a Member of the General Committee of the Fund.

thirst; Lieutenant (now Colonel) Conder and the P.E.F. party were there at the end of February and the beginning of March (1875). Many parties from the Dominican College and the German Archaeological Institute have gone in recent years, but always at this season. In spite of heavy rain one day and comparative cold all the time, we were quite satisfied with our choice of season. The earlier travellers had much difficulty in obtaining escort and safe conduct. The condition of the land is very different to-day, and we found a couple of ragged *Ta'amereh* Arabs –at the total cost of little over a pound for the whole six days –all that we needed.

We left Jerusalem (January 23rd) about 9 a.m. and rode to Bethlehem, where we had some little delay in waiting for our Arab guide. At 11.20 we passed on our left the road to the Frank Mountain, and twenty-five minutes later we left the *Wady ed Diyâ* and turned up a rocky valley to the right (south), which our guide called *Wady 'Ain Harrida*. After a quarter of an hour (at noon) we halted at the muddy well-like spring *'Ain Harrida*. After fifty minutes for lunch and refreshment we started again and wound up the wady, keeping to the left branch. A steep and rocky ascent brought us in twenty minutes within sight of *Khurbet Takû'a*, which we turned aside to reconnoitre. The hill on which lies this extensive ruin is magnificently situated; though bordering on the desert, it is surrounded, particularly to the west and east, by rich arable lands. To-day the place is utterly deserted; not a tree remains, though the ancient olive-presses show there must once have been plenty of olive trees there; the fields around are partially cultivated by the pseudo *bedu*, but practically speaking the surroundings have been allowed to lapse into semi-desert. The extent of the ruins is considerable, but all that lies on the surface appears to be late Byzantine and Arab; there are, however, many ancient tombs in the neighbourhood. There can be no reasonable doubt that this is the site of Tekoa of 2 Sam. xiv, 2, 4, 9, and 2 Chron. xi, 6, and xx, 20, and that being so, it is a place which would repay excavation. Its situation, within easy reach of Bethlehem, its present entire desertion (not even a *wely* marks the site), and its undoubted antiquity, all mark it out as one of the most hopeful sites for excavation in the hill-country of Judea.

We left *Kh. Takû'a* (Bar. 27·3) at 1.50 p.m. and rode south. We had allowed our guide to go on with the baggage, and, as it turned out afterwards, we kept too directly south. Our path, however,

was interesting, following most of the way the water-parting between the *Wady Hassāsah* and the *Wady el Jihar*. After about two hours our *Mukarri* perceived his mistake, and led us abruptly into the upper reaches of the former wady. We passed several camps of the *Taramreh* Arabs, where we received news of our camp being ahead of us, and at length, at 4.45, we found our men erecting our tent beside a shallow rain-filled *birket* known as *Mutukh Hassāsah*. The pool lies in the midst of a sloping sterile plateau, with low hills all around. Water is very scarce in this district, and the three deep pits which we passed in the bed of the *Wady Hassāsah* were all quite dry, so that this pool, though small and shallow, must be an important spot. Here we camped. Bar., 28·9; Temp., 8 p.m., 55·4° F. During the night there was a cold wind from the west and some light showers.

Second day.—At 7.15 a.m. temperature was 48·2° F. We were off at 7.53. After crossing some open stony ground and passing some sheepfolds we descended the rocky *Khallet el Muktār*, and at 8.20 crossed the *Wady el Mūterdah*: proceeding south-east, in five minutes we entered and commenced to ascend the *Wady Mukeiberah*. Our guide pointed out on our right a hill, apparently entirely natural, which he called *Kul'at el jush*. At 8.40 we ascended the *Wady Nuweita*, and in a quarter of an hour reached a heap of stones known as *Rejum Nuweita* (or as the guide pronounced it, *Inweita*). From this spot a fine view is visible; to the east the road before us traverses the deep *Wady Shukf*; north-east there is a peep at a corner of the Dead Sea; then to the north the Mount of Olives, Bethlehem, the Frank Mountain, and, in the distance, the mountains of Samaria are all visible. We now descended into the *Wady Shukf* —the bridle-path here, as on our whole route, was in good condition, —evidently an ancient and long-used track.

We crossed several branch wadys, and at 10.15 were joined by an important and ancient road from the north, which must run to *'Ain Feshkhah* and to *Mar Saba*. Close to this point there are a number of graves which our guide called *Kubūr Dawageeh*. Many of these looked as if they had been recently disturbed by animals or man. On one of them, which appeared to be more important, lay an old and much-rusted knife, an old Byzantine copper piece, and several pieces of metal shaped like coins. Here our guide recited the *fatah*, but with his back to Mecca. After a quarter of an hour we passed, on our right, the high road to Hebron, and crossed

(10.35) the *Wady Mākhōmah*, a tributary of the *Wady Sudeir*. At 11.5 we reached the top of the descent to *'Ain Jidy*. A great stretch of the Dead Sea lay below us. The "white line" was very distinct down the centre of the lake, with a fainter line running from it towards the west and another running from the main line north-east. At the point where the narrow part of the descent commences the barometer was 29·74, at the *'Ain* itself it was 30·72, and at the Dead Sea level 31·23. The descent itself bears evidence of a great deal of construction in ancient times, and with a very little labour might be made very fairly good for led animals—of course no one in his senses would ride down it. There are two or three places where our horses hesitated a little, and our baggage animal had to be practically unloaded in the middle section of the *Nekb*. It was surprising, however, how easy we found the ascent on our return. Descending slowly I reached the spring in an hour and a quarter, but going up we all did it well under the hour. We arrived 12.15 p.m. Temp. (air), 64·4° F.

'Ain Jidy itself bursts forth (Temp. 84° F.) below a mass of rock in two heads, and forms a small shallow pool from which the water runs off at two corners. In the neighbourhood of the pool flourishes the strange *'Usher* tree (*Calotropis procera*) with its large fleshy, obovate leaves, its crumpled, corky bark, and its curious deceptive fruit—full of dusty threads and air instead of succulence. These are considered by some to be those Dead Sea fruits described by Josephus (*B.C.*, IV, viii, 4), which "from their appearance would be supposed edible; but on being plucked with the hand they resolve themselves into smoke and dust." The colocynth, however, which also flourishes in these parts, answers at least as well to the description. Quantities of solanum (nightshade), of tamarisk, of *Sidr*, crowded with dôm fruit, and of reeds flourish here. The most characteristic and striking tree of this district, and of the whole western shore of the Dead Sea southwards, is the *Sayyâl*, or gum acacia tree, of which we recognised two varieties. This beautiful tree, with its dark green foliage, made up of tiny bipinnate leaves, its sharp prickly branches, and its tiny yellow flowers, is, in many of the wadys, the only object which redeems the scenery from utter bareness. It frequently takes the characteristic umbrella-like form, but many of the larger kinds look, from a distance, like miniature cedars. We gathered considerable lumps of gum arabic from the branches as souvenirs.

The situation of 'Ain Jidy is charming. From the platform, where the spring bursts forth, there is a splendid view of all the southern half of the Dead Sea. Due south the mighty rock of Masada is recognisable at a glance : *Jebal Usdum* stands out on the southern horizon ; just opposite to the east is the chasm of *Mojib* (the Arnon), and, south-east, part of *Kerak* can be seen very distinctly. Towering behind the spring, to the north-west, is the abrupt and pointed mountain known as *esh Shulef*. The little stream from the *'Ain* gives rise, in its downward course, to a tangled mass of reeds and thorny shrubs, and irrigates a few brightly-green patches of corn in the level delta plain below. The spot is one of enormous

Fig. 1.—Masada from the North.

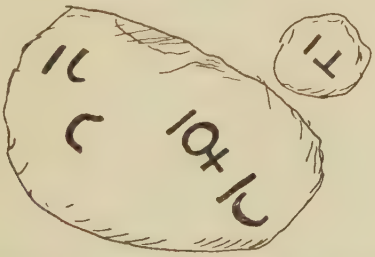
latent possibilities. We could see the hill sides terraced all around for the once famous "Vineyards of Engedy," but not a vine remains ; the plain 500 feet below the spring is strewn thick with Roman and Arab pottery and the ruins of house walls, testifying to the considerable population which once flourished here, but now not a house remains—the few Arabs who live here inhabit the caves. Once the city which stood here, Hazazon-tamar (Gen. xiv, 7, 2 Chron. xx, 2) was, as its name implies, famous for its palms ; to-day not a palm is visible, though fragments of trunks and leaves, saturated through and through with salt, lie dry and glistening along the whole west shore. In Roman times, and again in the

days of the Crusaders, this was a well populated and highly cultivated oasis, but to-day the spot has lapsed into little better than a wilderness. The old aqueducts are broken, the terraces are fast falling out of all recognition, the house walls are now unrecognisable heaps of stones; yet, even so, a spot so richly supplied with water, with such a panorama around it, cannot but remain attractive.

Both in going and returning we spent much of our time in the delightful *Wady Sudeir*, the northernmost of the two valleys which demarcate the 'Ain Jidy plateau. Those who have read Tristram's *Land of Israel* will remember his graphic description of a large grotto he found there. We set out to look for it, and one of our party, more adventurous than the rest, reached its mouth, but was unable to get up to it; the rest of us were more than content with our success in discovering the true source of the stream in the *Wady Sudeir* in a charming little grotto buried away in reeds higher up the valley than the great grotto of which Tristram speaks. For the sake of any who may wish to follow our footsteps, let me say that, to reach this spot, one must go direct northwards into the wady without descending from the level of *'Ain Jidy*. Probably the easiest route to find it is, as we did, to make towards a cave under a great slab of rock situated above where the reeds end, and, having crossed the wady at this point, to clamber down over the rocks and through the reeds in the direction of the sound of the loud-murmuring water. Among the reeds the water rises by several adjoining heads amidst festoons of long maiden-hair fern and under a canopy of enormous reeds. It is possible, in returning, to scale the wet peaty bank and reach the south bank of the valley direct, but for approach, the route I mention is easier to find and far cleaner. We pitched our tent just above and west of the spring. Temp., 8.20 p.m., 61·7° F.

Third day.—Temp., 7.40 a.m., 58·1° F.; Bar. 30·73. Light south wind, later in day south-east. Clouds all over the sky. Started at 7.40 a.m. We descended from the spring by a sloping road—clearly ancient—of a comparatively easy gradient, we crossed the *Wady 'Areyeh*, and had to wait for the camp some twenty minutes on its southern bank. Our road ran near the shore; at 9.15 we passed a spot where the smell of sulphuretted hydrogen is strong. At 9.35 we reached an extensive shallow lagoon, separated from the sea by a narrow sand bank, known as *Birket el Khalîl*. Our guide accounted for the name Khalîl, the usual Moslem name for

the patriarch Abraham, by the following tale. Abraham once sent two of his servants with a mule down here to get salt while he waited on the adjoining mountains, at a spot still pointed out, for their return. The lazy rascals came back saying there was no salt here, only earth; the patriarch, full of anger, exclaimed "Let it be earth there!" since which all the salt here has been earth, and this lagoon, though apparently like the salt lagoons elsewhere along the shore, yields no salt. Soon after this we turned inland. At 10.15 we noticed a remarkable isolated pillar of marl, about half a mile on our right, which our bedawy called *Katara Makhrûs*. A little further on we crossed some very soft ground, and at 10.30 we left the main road and took a small path on our right running in the direction of Masada, which we saw in increasing detail before us. For a quarter of an hour we crossed a great stony plain, part of the ancient delta of the *Wady Khasheibeh*. In the wady bed itself we passed remarkable perpendicular cliffs of stratified marl—the parallel strata standing out with wonderful distinctness. At 11.17 we crossed *Wady Sufseif*, and at 11.35 the deep *Wady Sayyâl*, a valley with high perpendicular banks. A quarter of an hour later we found a small pool of rain water in a natural rock basin, and, as it was considered by our guides that we might find no water at all at *es Sebbeh* (an experience common to travellers) we doled out the water to our animals—two small tin basins to each. This turned out to be unnecessary caution, for our guides found a much larger rain pool close to our camp. A few yards further we passed two rocks inscribed with the *wusûm* (sing. *wasm*) of various branches of the *Jehalîn* Arabs.



Our bedawy explained that the cross sign was not really a cross, but represented the two lines made by the nose (perpendicular) and the eyes (horizontal); he drew his hand across his face to explain us this. As we approached the foot of Masada (*es Sebbeh*)

we traversed, for about a quarter of a mile, a clearly defined ancient Roman road.

At 12.40 we reached our camping-place within the northernmost of the smaller ruined forts of Flavius Sylva. The enclosure was about 150 by 140 feet; the walls, though now but elongated heaps of stone some two to three feet high, are still practically complete, and afforded us a pleasant sense of security. The great rock of Masada, from here an acutely conical mass, towered above us. The day, which had begun cold and cloudy, had now developed into one of cloudless sunshine, and while the men erected the tent-roof as a shelter for lunch, we all gladly divested ourselves of superfluous clothes in preparation for our coming ascent.

We started at 1.55. Bar., 30·87. Much has been said about the difficulties of the path, but with needless exaggeration. Except that it is a stiff pull up of about 1400 feet—and on any but an unusually cool day, for this region, might for that reason be exhausting—I cannot see that there is anything that anybody, properly clothed and shod for a mountain climb, can call dangerous. Starting from our camp the track runs to a cave whose blackened mouth yawns some fifty feet up and thence passes in a long curve northwards (*i.e.*, in a direction *away* from es Sebbeh) before turning towards the great rock. After reaching the plateau above the ascent, we crossed the ruined Roman siege wall, passed the great north-western square camp enclosure, and then turned east on to the great earth embankment erected by the Roman general to carry his siege machines up to the wall. The path along this great work is easy, but the last hundred yards from its end up to the ruined gateway is perhaps the most troublesome of the whole ascent. We reached the summit (Bar., 29·96) at 3.5; our ascent thus took us eighty minutes, but we returned in exactly half this time. I fear it is quite impossible to convey adequately the impression of the site. Certainly no place I have visited in this land has so impressed me with a sense of grandeur and romance. Far the best pictures I have seen are those, drawn more than half a century ago by Mr. Tipping, which are reproduced in Traill's *Josephus*;[1] the frontispiece, in particular, is very faithful to nature. The great rock itself is best described as a fragment broken away bodily from the mountain range behind, and that, too, with such violence that

[1] Published by Houlston and Sons.

its sides have, on almost the whole circuit, a precipitous fall for many hundred feet. The summit of the rock is a comparatively level plain two thousand feet long (north to south) by one thousand feet wide, strewn thick throughout with Roman pottery. The greater part of this area was evidently, in the days when the fortress was inhabited, given over to agriculture.[1] Scattered about on the surface are a number of ruins. At the northern extremity of the rock, but below the plateau-level, are some curious outworks—a circular and a square fortress apparently—the exact purpose of which has never been satisfactorily explained. Across the whole northern end of the plateau runs a great wall, on the northern side of which are many elongated ruined chambers, in all probability largely store-houses for the vast accumulations of food which we read in Josephus[2] were here preserved against emergencies. Near the centre of the plateau is a ruined church of the Crusading period, or perhaps earlier, and not far from this are the great piles of massive stone blocks, which compose all that remains of Herod's once imposing palace. Many cisterns and caves are scattered about; of the former, the most noticeable is a great structure, some 80 feet long, 20 feet wide, and perhaps 30 feet deep, which even to-day is fully plastered. A flight of twenty-six steps inside the cistern itself is almost perfect; near this is a later rectangular open *birket*. The buildings are by no means all of one period: the substructures of some may go back to Jonathan the Maccabee, who first fortified the spot. The most massive of the works are undoubtedly Herodian; while some, specially the arched gate near the point of entrance, are certainly of the Crusading period, or thereabouts. Around the whole circumference may be traced the relics of the once powerful embattlements. In places, notably not far from the above-mentioned gate, the work belongs to two periods, both the style and the materials used being quite different in parts. We tried to trace both from above and later from below the remains of that winding eastern approach described by Josephus[3] and called by him "the Serpent." Practically the whole of this has been swept away. It is true that intrepid climbers like the late Sir Charles Wilson and Dr. (later Bishop) Barclay scaled the heights from this side, but they could have had little help from any traces of the ancient ascent.

[1] *B.J.*, VII, viii, 3.

[2] *B.J.*, VII, viii, 4.

[3] *B.J., loc. cit.*

These human remains are, however, not the features which most vividly recall the tragedy of the place. Rather is imagination quickened by the mighty precipices of the rock and of its opposing valley-sides, and even more by the wide view to north and east which, for wildness and grandeur, touched as it is with the historical tragedy, has, I suppose, no equal. Before us stretches the Dead Sea, its width narrowed immediately opposite to us by the queer flat peninsula, *el Lisân*. Behind that rises the long range of Moab, not as we see it from the Mount of Olives, a level wall, but broken up into many heights. To the north-east one can see the plains of Jericho, and behind that *Jebal Osha* above *es Salt*. At the foot of Masada is a strange and weird stretch of stony plain—the old lake bed—overlaid in places with the delta detritus from the great valleys, once the beds of raging rivers. Since the shrinkage of the sea this lacustrine deposit has been torn into a hundred valleys by the later torrents. In parts it lies stony and brownish grey, but seawards it has been cut into a labyrinth of passages, whose steep sides are composed of countless almost level strata of whitish marl. The coloured picture given in Tristram's *Land of Israel* (p. 319) is a very successful attempt to represent this extraordinary appearance.

More impressive, perhaps, than either ruined palace or the wonderful, wild beauty of the sunlit landscape, is the great encircling wall which we saw below us, and the square enclosures of the Roman camps. Our eyes followed that wall across rocky gorge and up steep mountain side until we assured ourselves that even to-day it encloses the fortress in one vast unbroken circle. Nowhere in the land is one so impressed with the iron might of Rome as standing there in sight of this vast work—the completed circle, the two great camps and the six smaller enclosures, the walls running up semi-precipices and down again into the deepest valleys, the great earth embankment at the gate—all made to shut in less than a thousand fanatic survivors of poor conquered Jewry. A waterless wilderness, a poor bedraggled remanent, and yet Rome, now master of Palestine, summoned the whole army of the land and made these mighty works to stamp out with ruthless stroke the last smouldering traces of Israel's great fight for civil freedom. Josephus' description (*B.J.*, Book IV, ch. ix) of this great tragedy gains vastly in vividness when read in the geographical surroundings he so faithfully describes.

Fourth day.—Next morning we took our hurried breakfast and packed our belongings under the light of a half-moon shining fitfully through driven clouds. Above us, stark and grim, rose the black mass of Masada: the wind blowing in gusts around us alone disturbed the silence of the wilderness; below us lay the long level line of grey water, and beyond, in dim outline, stretched the great hills of Moab. The ruined camp at our feet, the silent, solitary rock, the surrounding wilderness, in which we met not a single soul from 'Ain Jidy to Jebal Usdum and back again, all stood in

Fig. 2.—Embankment of Flavius Sylva.

startling contrast to the wild and bloody scenes which had once been here. At 6.15 a.m. we were off (Bar. 30·68). Our road led us across the *Wady Hafhâf*, the continuation of that great ravine which isolates the rock es Sebbeh from the mountains to the south. We descended parallel with the heaped line of stones which to-day represents Flavius Sylva's Wall. This latter descended into the bottom of the wady and was only broken at the deeper central channel which to-day forms the torrent bed. It is evident from this fact that all the now permanently dry channels have been high and dry since the time of the Romans, and that the central channel

down which plunges to-day the winter's rain-torrents was, at the time of the siege, in exactly the same condition. This is a remarkable demonstration of how unchanged have been the physical conditions in practically two millenniums. Many travellers crossing these wide torrent-beds along the Dead Sea Valley must have wondered, as I have often done, how long they have been in their present condition; manifestly they must have been formed at a time of much greater rainfall. Here we have proof that present conditions are unchanged for nearly nineteen centuries, and, I suppose, it is not going too far to say they have probably not changed during the whole period of known history. All the evidence is in favour of this conclusion.

On a stony plateau to the south of *Wady Hafhâf* we found the great south-eastern Camp of Flavius Sylva—a huge square, which according to the measurements paced out by one of our party, is 450 feet by 360 feet wide. The main features of the camp are evident to-day—the four sides, north, south, east, and west each with a central entrance, protected from a sudden rush of the enemy by a sharp turn to the left immediately inside the door: the open space free from all buildings just within all four walls: the four main roads from the gates converging upon the commander's headquarters—all these can be seen at a glance. We left this camp at 7.10 and after traversing a rough and stony plateau, we descended into the *Wady Buka'a es Sayyâl*, noticeable for its precipitous cliff to the south. Here we turned eastwards and reached the neighbourhood of the sea-shore about 8. The soft sandy soil of the level plain was here marked by the recent footprints of a hyaena, and there were several well defined raised beaches belonging to earlier levels of the Dead Sea, such as I have described elsewhere.[1] In twenty minutes we again entered the marly hills, and in a few minutes more we found the path obstructed by a dead camel, whose torn and bleeding throat witnessed to the recent work of our hyaena, while a group of magnificent vultures, well gorged by their horrid repast, hopped heavily out of our way. At 8.57 we crossed a small wady and at 9.3 we traversed the important *Wady Rabad el Jamûs*[2] just to the south of which is a small group of acacia and other trees looking like a deserted garden. Dark rain-clouds had for some time been

[1] *Q. S.*, 1904, pp. 163–167.

[2] *I.e.*, the "Valley of the haunt of the Buffalo."

advancing towards us from over *Jebal Usdum*, and now the rain burst upon us. After the stretch of level sand just south of Wady Rabad el Jamûs we, at 9.20, had to strike into the hills, the sea here washing against the cliffs: close to this spot are a number of sulphur springs, black in colour and stinking of sulphuretted hydrogen. For an hour the path now wound over rocky hills or curved along the sides of semi-precipitous slopes, washed at their base by the white-crested waves. At length we descended into and crossed the narrow but deep *Wady Hatrûra*, and then struck S.S.W. towards a mediaeval ruin crowning a low hill and known as *Kula'at M'baghik*[1] beyond which we descended into the deep *Wady M'baghik*. As we were to leave our camp here, we rode up the valley until we encountered (10.50) a small stream running from an abundant spring. Like the stream at *'Ain Jidy* the water, though full of crabs and molluscs, was destitute of all fish life. After such a dry wilderness as we had passed through we found this wady delightful, and after we had finished the day's work and returned from Jebal Usdum, some of us explored it for some considerable distance. For a mile or more the valley bottom is full of reeds nourished by the running water, and the appearance of this long winding line of bright green between the lofty grey cliffs on each side is striking. The limestone cliffs were in many spots overlaid by gravelly deposits belonging to the beach of the ancient sea which must have flowed far inland up these ravines.

After pitching our tent, we, at 11.15 a.m., started again southwards. The road ran along a particularly dreary stretch of shore, and then, after about an hour, we entered the *Wady Zuweireh*. Here the ground is intersected by countless stony channels from this and the adjoining *Wady el Muhauwât* for perhaps a mile, while seawards, there are large clumps of thorny acacias. We crossed the line of the channels diagonally, making for the north-eastern corner of *Jebal* or *Khashm*[2] *Usdum*. At 12.40 we passed a curiously sharply sunk depression in the ground, perhaps seven feet deep and ten feet across. Our guide called it *Mugharet en Nijmeh* (the Cave of the Star), and assured us it had been made originally by a falling star. Probably it is really due to waters having here found an easier channel seawards underground. On our return, when rain had swept across the hills to the south, a small rivulet was emptying its

[1] More classically spelt *Mubaghik*.

[2] *Khashm* = nose.

contents into the hollow, the water disappearing in the soft marly bottom. About 1 o'clock we found ourselves close to *Jebal Usdum*. We took the narrow path between it and the sea, which we pursued until we found our progress blocked by the waters washing up against the perpendicular cliffs. Till recent years there was a much used path along here, and its submergence, since about 1893, is one of the proofs of the general rise of level in the Dead Sea. Shortly before the path becomes submarine there is a shapeless heap of stones, known as *Rejum Umm ez Zughal*. There may have been some tower here long ages ago, but there is nothing to-day about the *rejum* to suggest anything but a purely natural heap of stone. *Jebal Usdum* has often been described—as it is essentially—as a great mountain of rock-salt, but this description does not enable the stranger in any degree to picture its actual appearance. The solid mass of salt forms the inner core of the whole mountain, but above it are three or four hundred feet of brownish marly deposit, while all along the base of the hill the salt is almost entirely hidden by great heaps of fallen marl. Between the upper sedimentary deposits and the fallen *débris* is a great mass of crystallised salt, dusted, however, all over by yellow-brown sandy material; it is only in places that the greenish colour of the semi-translucent salt appears. The rain has seamed deep sea-running channels in the hill, and it is up these that the true structure of the mountain is most apparent. We chanced upon a very attractive one, which reaches the sea a little north of the *rejum*. Some fifty yards inwards we reached a kind of grotto, at the mouth of which we left our horses, while we ourselves climbed in to eat our lunch safe sheltered from the rain. Here salt lay all around us; below, half hidden by yellow sandy soil, but from the roof depending in long and very hard stalactites, and at other spots projecting from the ground in masses, scored into fantastic shapes by the rain. The steep channel above us wound upwards into the mountain side, and scaling its bed—all solid salt—we came to a spot where the salt lay on three sides of us in vertical slabs twenty or thirty feet high, capped, along a perfectly level line, by the yellow marl. The rain, acting through long ages, has carved out queer intricate fissures in the salt, and, in many spots, the ground sounds hollow to the tread.[1] Considering that *Jebal Usdum* is seven miles long

[1] Farther south there is a large cave in the salt, but this can now only be approached by a long ride through the sea.

and the salt extends to quite 100 feet above the sea, besides going down to an unknown depth, the mass of salt deposited here must be enormous, and, properly exploited, its value to the country might be great. It is now a government monopoly, and private dealers must smuggle it; this, however did not deter our bedawy guide from shouldering the largest lump he could carry, to which, through thick and thin, he clung all the way back to his cave in Ain Jidy.

We left *Jebal Usdum* at 2.30. Our return journey was brightened by some beautiful atmospheric effects. The dark rain-clouds lay about the mountains of Moab so that they looked to me more like a scene on the shores of a Scottish loch than our familiar Palestine. At times a rainstorm passed rapidly across the lake from south-west to north-east, and for a considerable period the sunlit *lisân* stood out brilliant yellow in striking contrast to the cloud-encircled hills. Some gaudy rainbow fragments lay over the north-eastern extremity of the lake. We reached camp at 4.15.

Of the return journey it is not necessary to write in much detail. The night at *Wady M'baghik* was enlivened by a cold wind of extraordinary violence, accompanied by heavy rain, into the midst of which I had, after midnight, to go and rouse the muleteers to hammer home the tent pegs.

Fifth day.—Bar., 6 a.m., 30·94. We started at 6.37. The sea as we approached it looked like a boundless ocean; the opposite shore was blotted out with clouds, and foam-crested waves thundered on the shore. In crossing the headland of *Jebal Hatrûra* (at 7.30) I noticed, high on the cliffs to the north-west, against the sky line, a curious rocky point, which at first looked like a great statue: the head and bust looked very distinct. At 7.40 we reached the level beach, and at 8.15 crossed the *Wady Rabaḍ el Jamûs*. The rain and wind had gradually been gathering in violence all the morning, and now commenced to fairly sweep us along. At the *Wady Buka'a es Sayyal* we waited, partially sheltered by the high cliffs, for our camp and guides, and when they overtook us we resumed our march. We crept along the high road near the shore almost the whole way, and at many points traversed the actual beach. The roaring foam-crested waves, the fierce wind—fortunately at our backs—and the drenching rain made some four hours of that morning the wildest ride in my recollection. My memory is chiefly of keeping my eyes upon the naked legs and dripping *Abâ* of the poor shivering Arab

who trotted over the shiny plains in front of me; to turn to look toward those behind was impossible, and the only course of safety was to keep in his footprints, as some of our animals, who tried their own route, found to their cost.

When, at 12.20, we stopped to lunch in another wady, the sun commenced to peep out, and we could see the long threads of many waterfalls which coursed down the western mountains to our right, while across the sea all the mountain heights of Moab were crested with dazzling snow. We learned on our return that we had had but a taste of the violence of the storm which swept over the highlands. We started again at 1.5, passed *Birket el Khalil* at 1.20, and reached *'Ain Jidy* at 2.45. Bar. (7.15 p.m.), 30·66.

Sixth day.—Bar., 6.30 a.m., 30·79. We started at 7, and reached the top of the pass, *i.e.*, the end of the narrow part, at 7.45. Bar., 29·87. The actual top or end of the ascent was a few minutes further on (Bar., 29·79). There was a good deal of delay in getting our mules re-loaded and the burdens re-adjusted. We started off at 8.30. At 8.40 passed the Hebron road on the left, and the *'Ain Feshkhah* road on our right at 9.7, and reached *Rejum Nuweis* at 10.13. From here we saw a beautiful rainbow stretching over the snow-besprinkled hills. At 11.12 we watered the animals at the *Mutukh Hassāsah* (Bar., 29·12).

About 12.15 we passed two camps of the *Ta'amereh bedu* (where we left our first guide), and soon after we stayed half an hour for lunch near their graveyard. At 2.30 we passed near *Khurbet Takû'a;* at 3.47 passed the turning to the Frank Mountain (*i.e.*, where one turns off in coming from Bethlehem), and we reached the Jaffa Gate, Jerusalem, about 5 p.m.

NOTES ON PALESTINIAN FOLK-LORE.

By Miss Gladys Dickson.

(*Continued from April*, 1907, *p.* 151.)

V.

Some Water Superstitions.

Every spring of water is said to be watched at night by a spirit, which takes the form of either a human being or that of some animal. An example of this superstition will be found at Bir Zeit, a village situated north of Jerusalem, where, one is told, the spring which supplies the village is haunted at night by a maiden of beautiful face and form. This maiden appears every evening standing by the spring and combing out her hair, which is of great length and of a bright golden colour. If spoken to by anyone, however, the apparition immediately sinks beneath the surface of the water. On certain occasions the spirit has been seen in the form of a sheep of unusual size and beauty, and it likewise vanishes if called to, or if attempt be made to secure it.

I have been told that at the village of 'Ain Karim, the spirit which haunts the spring takes the form of a middle-aged ordinary-looking peasant woman who is usually to be seen sitting by the mouth of the spring on a large boulder. The following story is related by the people of the village, of one whose death was caused by the sight of the ghost:—"One evening, many years ago, a certain woman living in the village discovered to her dismay that she had forgotten to pay her usual visit to the spring during the day, in order to obtain water with which to supply her family. After pondering a while as to what she should do, she made up her mind to risk the danger of seeing the spirit, and accordingly set off to the spring with her jar poised on her head. On reaching her destination, however, she lifted her jar down, and was in the act of resting it on the ground in such a position that it could catch the fall of the water, when she became greatly alarmed to find it suddenly transformed into a woman. The shock which she sustained

at seeing this, was so great that the blood commenced to flow in great quantities from her nostrils and mouth. She tried to make her escape from the place, but as she turned to do so, her foot slipped and she fell, thereby causing to herself internal injury to which she soon succumbed."

One is told to beware of drawing water from a cistern or well after dark, as all water after nightfall becomes inhabited by spirits, and their cries of anger at being disturbed are such as to cause great alarm.

One is also told never to throw away water after nightfall. If obliged to do so, however, it is necessary to invoke Allah to keep off the evil spirits.

VI.

Lucky and Unlucky Dreams.

It is considered lucky to dream of the dead, but he who dreams of receiving anything from one no longer living, or of taking his hand in the usual form of salutation, will be overtaken by great misfortune.

He who dreams of falling from a high place, or of flying through the air, will shortly meet with his own death.

He who dreams of a donkey will receive a gift consisting of money.

A woman who dreams of combing her hair will ultimately become insane.

He will shortly hear of a death who dreams of a camel.

To dream of an olive tree denotes a prosperous future.

It is considered very lucky to dream of blood.

To dream of a shoe indicates that a friend will take a journey.

It is said to be unlucky to dream of water, any kind of yellow metal, and oil.

Good luck comes to him who dreams of fire, and snow.

It is considered unlucky to dream of making a journey.

He who dreams of a tooth will shortly hear of a wedding; if the tooth be one of his own, it is a sign that he himself will be married before long.

He who dreams of fine weather in winter will have a great joy, but he who dreams of rain in summer will have a great sorrow.

He who dreams of summer fruits during the winter will shortly quarrel with one of his friends.

He who dreams of being bitten by a serpent so that blood is drawn, will be maligned by his neighbours.

VII.

The following is a miscellaneous collection of recipes, etc., I have heard and noted down from time to time:—

Wounds, sores, or burns may efficaciously be healed by the application of an ointment prepared in the following manner:—A rat which has been caught before sunrise must be killed and buried in the ground. After seven days, it should be unearthed and placed in the fire until it is burnt to a cinder. The cinder must then be pounded and mixed with a little olive oil, until it forms a paste.

To anyone suffering from fever, the Bedouin recommend a bowl of camel's milk, which should be well stirred round with the tail of the camel which supplied the milk, just before it is given to the patient.

A person, wishing to do an injury to another, may cause him to lose his voice for the whole of his life, by giving him a cup of coffee in which a small portion of a pigeon's nest has been mixed.

Warts (which are said to appear on the hands as the result of attempting to count the stars) can be removed by keeping them covered with onions that have been boiled in vinegar.

The leaf of the prickly-pear cactus mashed and mixed with a handful of *henna*—a red dye commonly used by the natives in the East—is an efficacious cure for chilblains.

To insure the recovery of a small-pox patient, it is necessary to burn stable refuse close to the patient throughout the period of his illness.

Dew gathered from the vine-leaves in the early dawn is considered effectual in removing freckles, and in prolonging the growth of the hair.

Vinegar in which maiden-hair fern has been boiled, will cause the hair to grow with marvellous rapidity.

A woman should only cut her hair during the month the vines are pruned. It is said to be both sinful and injurious to the hair to do so at any other time.

To make a dog savage, it is considered necessary to cut off both his ears, while he is still a puppy, fry them and make him eat them.

A donkey or a horse suffering with catarrh of the nose, may be cured by tying a tin vessel to its nostrils, in which blue rags are set to smoulder.

THE CHURCH OVER JACOB'S WELL.

By C. K. Spyridonidis, Jerusalem.

Communicated by Arch. C. Dickie.

This Church was dedicated to one of the most holy spots in Palestine. The identification of the site with the "parcel of a field" bought by Jacob for "an hundred pieces of money," Gen. xxxiii, 19, within which the well was dug, destined to become later the meeting-place of our Lord and the woman of Samaria, St. John iv, 6, is generally accepted. It is situated in the plain at the foot of the great mountain *shoulder* from which the ancient city of Shechem takes its name.

Some authorities, among whom is the Rev. Père Lagrange, find some difficulty in accepting this identification, because of the existence of another spring of "living water" nearer to Sychar,[1] to which, it is argued, the woman of Samaria would most likely have gone for water. This argument is met by the answer that the spring—Ain Defney—was then, probably, private property, and used for irrigation, whereas Jacob's well was public, and accessible to all.

A church dedicated to the well was built by Constantine. The Bordeaux Pilgrim, A.D. 333, writes of Jacob's well at Sychar and of its association with Jesus and the Samaritan woman, and also of the Sycamore trees planted by Jacob, and the bath which was built near the well, but does not mention the church. Paula XVI, A.D. 386, mentions the church, from which it may be inferred that it was built between A.D. 300 and 386. Antoninus Martyr, A.D. 570, writes of a basilica with the

[1] The village of Iskar (Sychar), to which the woman of Samaria belonged, lies north of the well, at the base of Mount Ebal.—A.C.D.

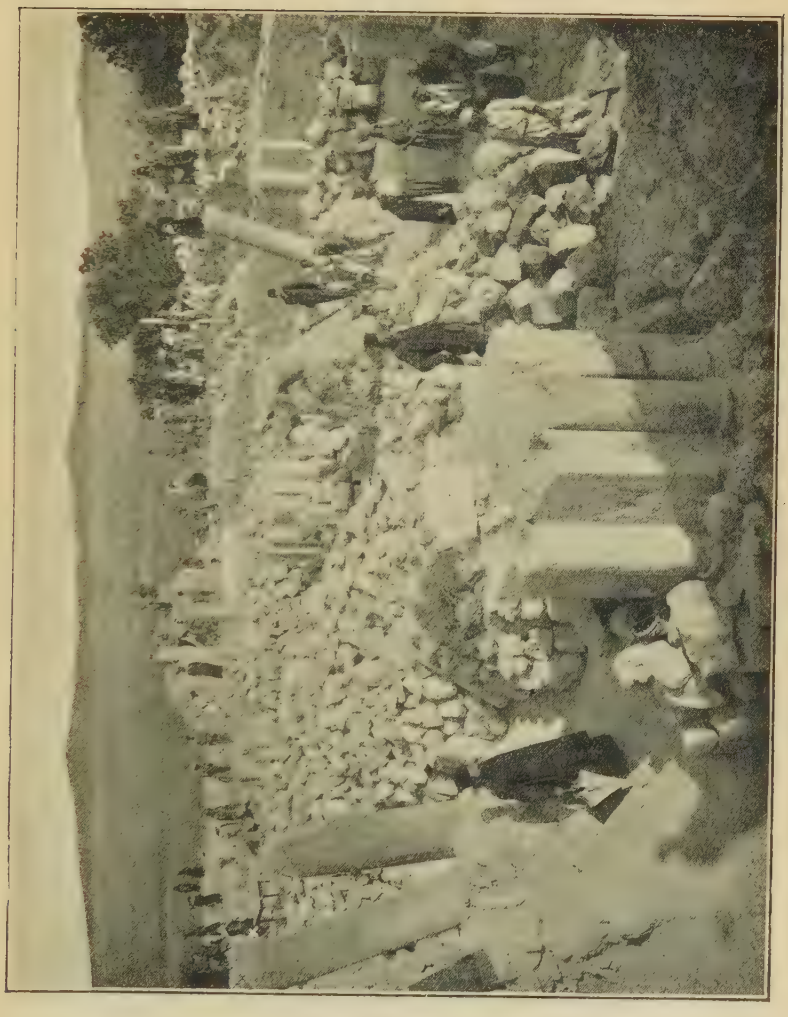


FIG. 1.—THE CHURCH OVER JACOB'S WELL.

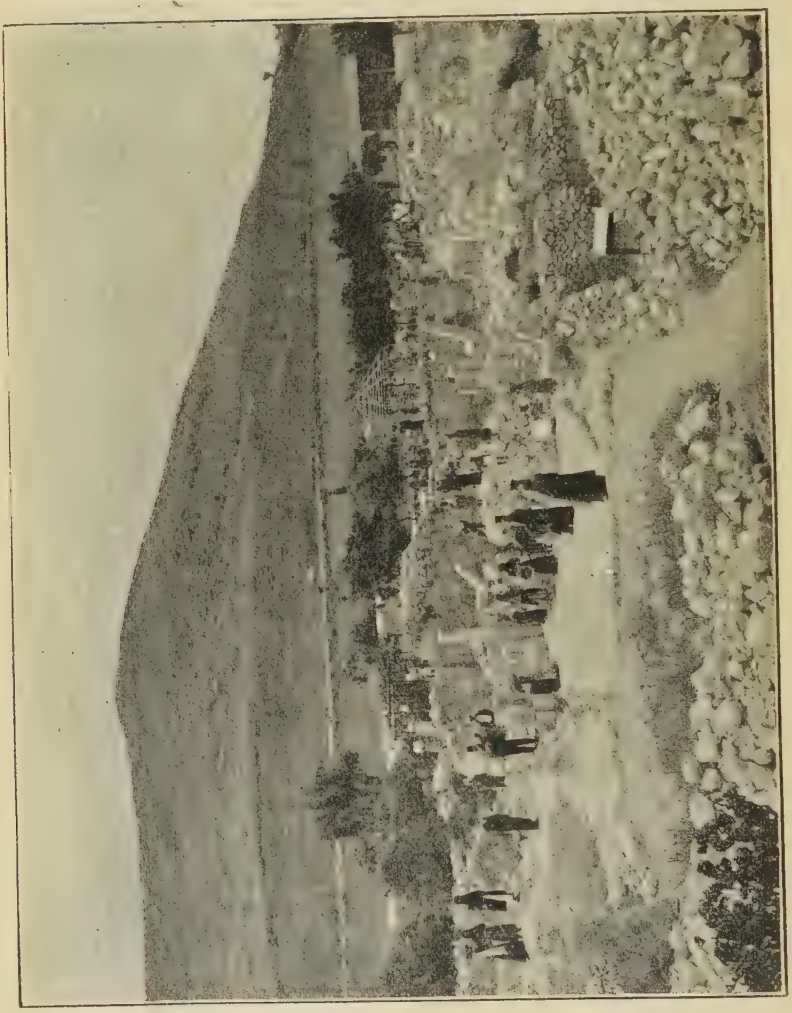


FIG. 2.—THE CHURCH OVER JACOB'S WELL.

well enclosed by railings, which were around the altar; further he says that the church was built in memory of St. John the Baptist,[1] but it is well known that St. John the Baptist Church was in Sebastia.

Arculf, A.D. 670 writes that the church was built outside the walls of Shechem, and its plan was that of a Greek cross, with its arms pointing to the four cardinal points. In the centre of the cross lay the well,[2] which had a depth of almost 60 metres. At that time the Persians came and destroyed many of the buildings of Palestine. The church appears to have been rebuilt by the Crusaders. It was seen by El Edrise in 1154, and was destroyed in 1187. Permission has now been obtained to rebuild it, and when this is done, one of the most venerable of Christian Sanctuaries will be preserved for future generations.

The mouth of the well, marked by a X on photograph, is in the crypt, under the high altar. The crypt is approached by two stairs, leading from either side of the sanctuary arch, but the steps seem to be of a later date, as they are irregular. The well head is broken and worn by the friction of ropes by which the water was drawn. The dimensions given by Barclay, *Q.S.*, July, 1881, p. 212, are correct, 3′ 9″ × 2′ 7″ × 1′ 6″ thick. It stands 1′ 1″ above the floor, and the diameter of the aperture is 1′ 5½″.

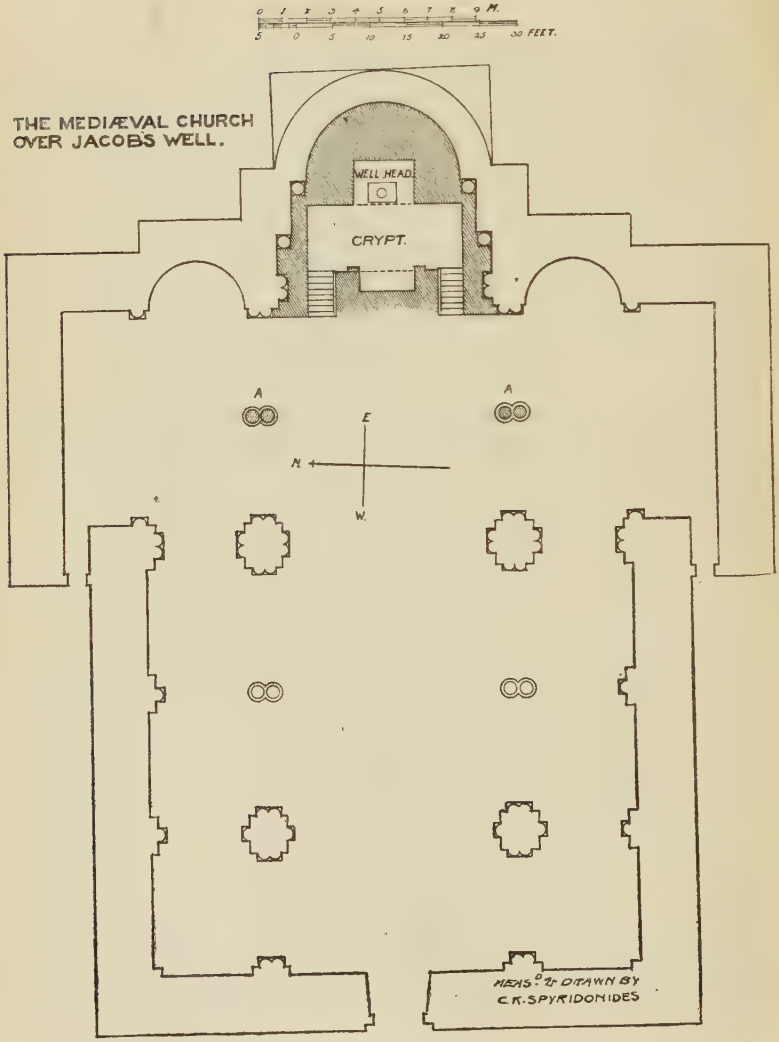
Captain Anderson, who descended the well in 1864, describes it in "The Recovery of Jerusalem." It sometimes contains water, but is often dry; it appears likely that it would provide a constant supply if it were properly cleaned out. The walls of the crypt are plastered.

The inner facing of the church is built of a white-yellow stone, named "cacouli," but is not plastered. The thickness of the walls is 2·40 to 2·50 metres.[3] The mouth of the well, as shown on my plan, indicates its position in the crypt. The height of the crypt is about 7′ 9″, floor to floor of church. The intermediate coupled columns, shown by dotted lines at the crossing of the transepts, were found there, hence my restoration.

[1] Antoninus Martyr VI: "There a church has been built in honour of St. John the Baptist, and the well itself is placed before the rails of the altar." This seems to indicate that the well was outside the rails of the altar, and not "enclosed by railings." Antoninus Martyr, p. 6, note (Per. S^ae Paulae, Ch. XVI) was "probably built fourth century. Arculf describes it, II, 19, as cruciform, Willibald (Chap. XXVII) alludes to the church and well, which he places near Sebaste. Antoninus appears to have confused the church of St. John at Samaria with that built over the well at Shechem."—A.C.D.

[2] This does not at all coincide with the plan of the church as now recovered, which shows the well under the sanctuary, which forms one of the arms of the cross. I am inclined to agree with Bliss, *Q.S.*, April, 1894, p. 108, that the church Arculf described was the crypt, the upper church having been destroyed by the Arabs. The plan given by Arculf shows plainly a cross, with the well marked at the crossing.—A.C.D.

[3] This unusual thickness is accounted for by the fact that the church was, in all probability, groined and vaulted, and, as there are no buttresses, the thrust of the vaulting was received by the continuously thick wall.—A.C.D.


0 1 2 3 4 5 6 7 8 9 M.
5 0 5 10 15 20 25 30 FEET.
THE MEDIÆVAL CHURCH OVER JACOB'S WELL.
WELL HEAD
CRYPT.
A
A
E
N.
W.
MEAS.D & DRAWN BY C.R. SPYRIDONIDES

The two photos illustrating the excavations will give a clear idea of the remains of the church. Photo No. 1 is taken from the north-western angle of the church, and the position of the well-head is marked by a cross. Photo No. 2 is taken from behind the apse looking west.

Note.—The well has been described by Anderson, *Q.S.*, 1877, p. 73; Barclay, *Q.S.*, July, 1881, p. 212; Robinson Lees, July, 1893, p. 255; Bliss, April, 1894, p. 108; and Schick, Jan., 1900, p. 61. Discrepancies occur between these various plans and the plan prepared by Mr. Spyridonidis, but these can, to some extent, be accounted for by the fact that, until quite recently, the church had not been excavated. There is a variation in the dimensions of the crypt and its position in relation to the church over. Bliss shows a plan with five aisles, which was restored from certain imperfect surface indications. Schick's plan of three aisles, published later, corrected the previous restoration, but his plan of the side aisle apses does not seem to have been properly shown. Further, he gives the outside dimensions of the church at 140 feet long by 87 feet wide outside, not including the eastern apse, whereas Mr. Spyridonidis' plan only scales 108 feet long from west end over transept, and 82 feet wide, outside measure.

From the photographs it seems quite evident that the remains now unearthed are entirely Crusading.—A.C.D.

A JERUSALEM CHRISTIAN TREATISE ON ASTROLOGY.

(*Continued from Q.S., p.* 150.[1])

By Miss Gladys Dickson, Jerusalem.

Of the Rising of the Habitations and their Radical Meanings. [15]

April has *Ḥamal*, and of the planets *Mirîḫ*. On the ninth rises *Nâṭiḥ* in *Baṭn el-Ḥût*. If the new moon appear in it, and if it be upright, it betokens peace.

May has of the signs *Thawr*, and of the planets *Zuharah*. It is the house of the Happiness of the World.[2] On the 4th rises *Buṭain*. On the

[1] In the list on p. 144, lines 4 and 6 read Capricorni, and on line 10 read Cor Leonis.

[2] This is a literal translation of the passages, هو بيت سعادة الدنيا and هو بيت ملك الدنيا respectively. They are presumably names of stars or astrological technicalities: I have no source of information at hand to enable me to explain them.

20th rises *Thurayya*. If the new moon appear in it and be upright it indicates terrible cold ; if oblique it indicates excess of rains and goodness of fruits.

June has of the signs *Jawza*, and of the planets *'Uṭârid*. On the 1st rises *El-Dabarân*. On the 20th rises *Han'ah*, and sets *Na'âyim*. If the new moon appear in it and be upright the crops will be sound, and the beasts will die and the vineyards will be good. If its horns be oblique there will be mortality in that year.

July has of the signs *Saraṭân* and of the planets the *Moon*. On the [16] 20th rises *ed-Dirâ'* and sets *Sa'du 'd-Dâbiḥi*. If the new moon appear in it and be upright the heat will be excessive and diseases will break out among people, and prices will fall owing to fertility. Cold and snow will increase in December.

August has of the signs *Asad* and of the planets the *Sun*. It is the house of the King of the World.[1] On the 5th rises *Ṭarf* and sets *Sa'du 's-Sa'ûd*. On the 18th rises *Jabhah* and sets *Sa'du Bula'a* ; on the 20th rises *Natrah* and sets *Sa'du 'l-Aḫbîyah*. If the new moon appear in it and be upright it indicates excessive cold ; if oblique it indicates rain.

September has of the signs *Sunbulah*, and of the planets *'Uṭârid*. On the 11th rises *Ṣarfah*[2] and sets *el-Farghu*[3] *'l-Muwaḫḫar*. On the 20th rises *Ṣarfah* and sets *el-Farghu 'l-Mukaddam*. If the new moon appear in it and be upright it indicates mortality among animals.

October has of the signs *Mîzân*, and of the planets *Zuhrah*. On the [17] 9th rises *Simâk* and sets *Baṭn el-Ḥût*. On the 22nd rises *El-Ghafîr* and sets *Šaraṭain*. If the new moon appear in it and be upright the rains will be short.

November has of the signs *'Akrab*, and of the planets *Mirîḫ*. On the 17th rises *Iklîl* and sets *Thurayya*. On the last day rises *Falîd* and comes to setting *El-Dabarân*. If the new moon appear in it, if it be upright it indicates goodness of crops.

December has of the signs *Kaws*, and of the planets *El-Muštari*. On the 22nd rises *Na'âyim* and sets *Han'ah*. If the new moon appear in it and be upright, it indicates diminution of rain.

January has of the signs *Jadi*, and of the planets *Zuḥal*. On the 7th rises *Baldah* and sets *Dhirâ'*. On the 20th rises *Sa'du 'dh-Dhâbiḥi* and sets *Natrah*. If the new moon appear in it and be upright it indicates goodness of fruit and cold.

February has of the signs *Dâli*, and of the planets *Zuḥal*. On the [18] 2nd rises *Sa'du Bula'a* and sets *Ṭarf*. On the 14th rises *Sa'du 's-Sa'ûd* and sets *Jabhah*. On the 27th rises *Sa'du 'l-Aḫbîyah* and sets *Dabrah*.

[1] See note 2, page 253.

[2] This is the reading of the MS. : it is a slip of the copyist for *'Awwâ*.

[3] This is the correct form of the name, though the MS. always reads فرع (*Far'u*).

If the new moon appear in it and be upright it indicates great cold; if oblique it indicates excessive rains.

March has of the signs *Ḥût*, and of the planets *el-Muštari*. On the 13th rises *Farghu 'l-Mukaddam* and sets *Ṣarfah*. On the 27th rises *Farghu 'l-Muwaḫḫar* and sets *'Awwâ*. If the new moon appear in it and it be upright it indicates great winds and rains and mortality among sheep; if oblique the fruit is diminished in it and there is excess of plenty.

On the Twenty-Eight Habitations of the Moon. [19]

Know that *Šarataîn* and *Buṭain* and *Thurayya* belong to Ḥamal and they are in thirds. And a third of *Thurayya* and *Dabarân* and *Haḳ'ah* to Thawr; and a third of *Haḳ'ah* and *Han'ah* and *Dhirâ'* to Jawza; and *Natrah* and *Ṭarf* and a third of *Jabhah* to Saraṭân; and a third of *Jabhah* and *Zabrah* and *Ṣarfah* to Asad; and a third of *Ṣarfah* and *'Awwâ* and *Simâk* and *Sunbulah* to Sunbulah; and *Ghafir* and *Dhanâbâ* and a third of *Iklil* to Mîzân; and a third of *Šulah* and *Na'yîm* and *Baldah* to Ḳaws; and *Sa'du 'dh-Dhâbih* and *Sa'du Bula'a* and a third of *Sa'du 's-Sa'ûd* to Jadi; and a third of *Sa'du 's-Sa'ûd* and *Sa'du 'l-Aḫbîyah* and a third of *Farghu 'l-Muḳaddam* to Dali; and a third of *Farghu 'l-Mukaddam* and *Farghu 'l-Muwaḫḫar* and *Baṭn el-Ḥût* to Ḥût.

If the moon lodge in *Sharaṭain* (which is *fiery*) there is bad luck moderated with good. It is a proper time for action and for friendship. Put not on new garments therein nor approach those endowed with power, or women. Whoso is born on that day will be evil and spendthrift of goods.

Buṭain is from 13° 51′ 56″ (understand that sixty seconds is a minute, [20] and sixty minutes a degree). *Buṭain* is fortunate, *airy*,[1] dry. It is a proper time for making friendships and approaching nobles. Whoso is born on that day will be pious, good of life; but a female will be quarrelsome.

If the moon lodge in *Thurayya* (which is from 25° 42′ 52″ and it has 8° from *Ḥamal* and 34′ 16″ from *Thawr*) it is *airy*, dry, cool and fortunate. It is a proper time for remedies and scents, and amulets, and approaching nobles. It is a proper time for marriage, and building, and sowing, and wearing new clothes. Whoso is born on it will be pious and of good reputation.

If the moon lodge in *Dabarân* (which extends 51′ 42″ from 8° 34′ 26″ in *Thawr*) *earthy*, cold and ill-luck; hostilities are excited. Enter not in to those of rank nor to women; travel not. Whoso is born thereon will be envious and quarrelsome.

[1] The MS. here reads حار, which I venture to emend to هوای on the analogy of the other habitations, which are classified as نارى ("fiery"), ترابى ("earthy"), مايئ (*sic* "watery"), and هوای ("airy").

If the moon lodge in *Haḳ'ah* (which is from 21° 42′ 9″). *Earthy.* Good [21]
fortune, moderated with ill. Have intercourse thereon with the great; do not undertake any sort of work. It is a fitting time for marriage and wearing new clothes and travelling.

Han'ah is from 8° 32′ 26″ and it has 51′ 42″ from *Thawr*. *Earthy.* Bad fortune. Approach not nobles, undertake no work, enter not in to women; build not, plant not, and travel not in it. Whoso is born thereon will be envious.

Dhirâ'. If the moon lodge therein, it is a proper time for everything—approaching nobles, sowing, wearing new clothes, trade and marriage. Whoso is born thereon will be of praiseworthy reputation. It is from 16° 33′ 8″; it is the seventh station.

Natrah is from 12° 51′ 16″ from *Sarațân*. Its good luck is moderate. Wear not good clothes, nor buy cattle, nor trade. Shun approaching men of rank. Whoso is born thereon will have a sorrowful life and a praiseworthy reputation.

Ṭarf is from 12° 51′ 16″; it has 21° 42′ 52″ from *Sarațân*. *Watery.* It is [22]
a proper time for hostilities. Enter not in to those in authority. Whoso undertakes anything will repent. Whoso is born thereon will be unlucky.

Jabhah is from 25°; it has 42′ 50″ from *Sarațân* and 8° from *Asad*. *Watery.* Convenience and ill-luck are mingled. It is fitting for action, and doing work and marriage, not for travelling and for wars. Whoso is born thereon will be wily and deceitful.

Zabrah is from 28° 19′ 30″; it has from *Asad* 21° 25′ 42″. It is lucky. It is a proper time for winning hearts and approaching the great. It is a proper time for marriage and trade and keeping cattle and for tillage. Whoso is born thereon will be happy.

Ṣarfah extends from 21° 25′ 40″, and has 4° 27′ 7″ from *Asad*. *Fiery.* Good-luck moderated. It is not a proper time for action or entering in. Whoso is born thereon will be noxious.

'Awwâ is from 4° 7′ 7″, and has 17° 9′ from *Sunbulah*. *Earthy.* Dry; [23]
moderated with bad-luck. It is a fitting time for actions and enterprises; not for litigation. It is a proper time for entering in to nobles and doing work and travelling. Whoso is born on it will be intellectual, and unkind to his parents.

Simâk is from 17° 9′ 57″, and extends from *Sunbulah* to its end. *Earthy.* Ill-luck. Undertake not any works, nor enter in to nobles, nor have intercourse. Whoso is born thereon will be quarrelsome and wicked.

Ghafir is from the first degree of *Mizân* to 12° 51′ 27″. *Airy.* Fortunate. It is a fitting time for winning [hearts] and entering in to nobles and doing work. Whoso is born thereon will be happy and faithful.

Zayât[1] [recté Dhanâbâ] is from 6° 51′ 62″, and has 25° 42′ 52″ from [24]
Mizân. Its indication *fiery*; ill-luck moderated. Undertake not any

[1] الزيات, MS. Read الذنابا.

works, but to have intercourse with the great is praiseworthy, as is marriage. Wars will be conquering and victorious. Whoso is born thereon will be very bad and hated.

Iklîl is from 5° 42′ 50″, and has from *Mizân* and *Ḳaws* 7° 31′ 27″. *Watery, mixed with air.* Bad and injurious luck. It is not a fitting time for any sort of action, nor entering in to nobles. Whoso is born thereon will be hated and evil.

Ḳalb is from 7° 34′ 42″, and has 6° 36′ 42″ from *'Akrab.* *Watery.* Happy. Do on it every deed, only keep from marriage and travelling. Whoso is born on it will be faithful and of praiseworthy reputation.

Šûlah is from 21°, and has 4° 21′ 21″ from *'Akrab.* *Fiery.* Is mixed with bad-luck. Arrange no affairs in it, nor enter in to nobles, nor make a present of anything, nor travel. Whoso is born on it will be of ill fame, hated, and evil of reputation.

Na'âyim is from 3° 17′ 7″, and has 17° 7′ 30″ from *Ḳaws.* It is happy; [25]
do therein every work, have intercourse with the great; it is a good time for marriage and crops and victory in wars, and wearing new clothes. Whoso is born thereon will be happy and beloved.

Baldah is from 21° 7′ 31″, and extends from *Ḳaws* to its end. *Fiery.* It indicates unlucky and corrupt. Shun actions in it, and do not go near the great. Whoso is born thereon will be reprobate and unfortunate.

Sa'du 'dh-Dhâbîḥ, the 22nd station, is fortunate, mixed. It is not a fitting time for action; have no intercourse in it with anyone. Shun travel and marriage. Whoso is born thereon will be happy and of good reputation.

Sa'du Bula'a is from 12° 21′ 22″, and has 23° 42′ 51″ from *Jadi.* *Earthy.* Appears mixed with ill-luck. Shun the arrangement of affairs. It is good for having to do with nobles. Whoso is born thereon will be avaricious and oppressive to his parents.

Sa'du 's-Sa'ûd, the 24th station, is from 25° 42′ 8″. It extends from *Dâli.* *Airy* and *earthy.* Fortunate. A fitting time for every action and profession, and agriculture. Whoso is born thereon will be fortunate. [26]

Sa'du 'l-Aḫbiyah is from 7° 34′ 16″. *Airy.* Ill-luck. It is a fitting time for spiritual matters. Shun trade and intercourse with nobles and marriage. Whoso is born thereon will be evil.

Farghu 'l Muḳaddam extends in *Dâli* from 27° 59′ 55″. *Airy.* Fortunate for every action and intercourse with the great, and travelling. It is victorious for wars. Whoso is born thereon will be fortunate.

Farghu 'l Muwaḫḫar extends in *Dâli*, from 4° 7′ 33″. *Watery.* Good mixed with bad-luck. It is a fitting time for having intercourse with the great and for wars. Shun marriage. Whoso is born thereon will be quarrelsome and bad.

Rašâ, which is *Baṭn el-Ḥût*, is from 17° 7′ 33″. *Watery.* Indicates good fortune. It is a fitting time for marriage and entering in to the

great, and keeping cattle. It is a praiseworthy period. Whoso is born thereon will be prosperous, pious, and praised in his reputation.

A view of the Unlucky Days in the Twelve Eastern Months. [27]

September 1, 4, 5, 9, 23.	March 4, 19, 22.
October 3, 5, 7, 23.	April 6, 7, 19, 25, 30.
November 1, 6,[1] 4, 21, 25.	May 1, 6, 7, 8, 19, 25.
December 1, 3, 6, 14, 21, 25.	June 3, 6, 9, 12, 18, 25.
January 2, 3, 6, 14, 24, 27.	July 3, 6, 8, 16, 20, 22.
February 6, 11, 14, 16, 24.	August 2, 4, 10, 15, 19, 22.

It is a man's duty to be cautious in work and trade upon them.

(*To be continued.*)

NOTES AND QUERIES.

1. *Khurbet Jedirch* is a ruined site to the south of the old cross-country road from Gezer to Emmaus Nicopolis (*'Amwâs*), and about three and a half miles from the former place. I lately took advantage of a day when the weather had obliged me to suspend the work of excavation, but which later on cleared up, to revisit this site and to make a more careful examination of it than I had previously done. It has sometimes been identified with the Biblical *Gederah of Judah*, but the identification is impossible, as the ruin is entirely Roman, Byzantine, and Early Arab. There is no trace of any older occupation, nor is there any artificial accumulation underlying the surface stratum. The potsherds which strew the surface are, for the greater part, Arab. There are the remains of several large buildings, some of which have consisted of stones of considerable size—a few of these are drafted. But all are so badly ruined and demolished that careful excavation would be necessary before the plan of any of these buildings could be recovered.

The whole area is pitted with cisterns, one of which is of some interest. It is of irregular shape, and partly roofed with a masonry vault supported on arches. A passage, much choked up and now

[1] *Sic* MS. Probably should be 2 (ב for א).

stopped at the end, runs northward from this chamber. Where it may go to, it is, of course, impossible to tell without excavation; but it is running in the direction of another cistern a short distance away, which is now almost completely filled up with silt. I know of no other case of two cisterns being connected by a subterranean passage, and am inclined to infer that these underground chambers were originally made for some other purpose.

There is nothing to be seen in the cistern except mud, stones, and a stone roller with a mortice at each end. This roller measures $17\frac{1}{2}$ inches long and $11\frac{3}{4}$ inches in diameter. The walls of the cistern are lined with hard cement. There are at least two olive-presses among the ruins; one of them is of the Roman type with upright stone standards; the other is the type with flat disc, for receiving a rotary grindstone. It would almost seem as though this settlement had been surrounded by a wall, a considerable length of which remains on the north-west side. But without digging it would not be possible to tell whether this may not be merely a row of walls of the outermost houses.

The wely of Sheikh 'Ali el-Jedîreh stands to the north of the ruin, and close to the cistern just described. This shrine is partly ruined, but is an object of devotion, and (as is often the case) firewood and other property is stored there under the sheikh's protection. There is here a pile of timber which is used from year to year by the harvesters, to construct booths for themselves in the fields. Between harvests it is left in the wely, and is perfectly safe from theft. Besides these objects left in trust, there are a number of the usual votive deposits, rags, trinkets, bits of candle, and such-like odds and ends. A fine olive-tree grows inside the enclosure. The building is roofed with a simple barrel vault, in the centre of which rises a low dome. It is not square, as welys usually are, but long and narrow: what is remarkable is, that the long axis lies east and west; that is, at right angles to the orthodox direction of the kiblah. I suspect that it was part of a house belonging to the old settlement, afterwards adapted as a resting-place for the saint.[1]

R. A. S. Macalister.

[1] Besides the plan and section of the cistern, I forward three photographs: one representing the ruined site, as seen from the north; another shewing the wely of Sheikh 'Ali; and a third taken by magnesium light inside the vaulted cistern. [These may be seen at the Office of the Fund.]

2. *A Greek Inscription from Abil (Abel of Beth Maacah) in Galilee.*—In the *American Journal of Archæology*, 1907, pp. 315 etc., Mr. B. W. Bacon publishes a new Greek inscription dating from 293 to 305 A.D. found near the Gesr el-Ghajar bridge on the Banias road not far from Abil. There are thirteen fairly legible lines commencing with the formula "Diocletian and Maximian august Caesars and Constantius and Maximian Caesars." It concerns the erection, by imperial order, of a boundary stone upon the property of a person apparently named Chresimianos. The last two lines closely resemble a text from the same region found at Namara (Nawr), and edited by M. Clermont-Ganneau in his *Recueil d'Archéologie Orientale* I, p. 4, and read, Mr. Bacon considers (approximately), *Φροντίδι (ἐπι)στάτου τούτου διὰ κημσίτορος.*

A reviewer of Mr. Bacon's essay in the *Revue Biblique*, however, reads these words as *φροντίδι Ελιου στατοῦ τούτον διὰ κημσίτορος.*

This scholar also reads **CЄBB**, a frequent abbreviation for *σεβαστοί* in line 3; and also deletes a final sigma in line 7; and in line 11, at the end, add two letters, so reading *Ἔλιον.*

This renders the whole text as follows:—*(ἐεσπόται ἡμῶν?) Διοκλητιανὸς καὶ Μαξιμιανὸς σεβ(αστοὶ) καὶ Κωνστάντιος καὶ Μαξιμιανὸς Κ(αί)σαρες λιθον διορίζοντα ἀγροὺς ἐποικίου Χρησιμιανου στηριχθῆν(αι) ἐκέλευσαν φροντίδι Ἔλιου στατοῦ τούτου διὰ κημ(σίτορος).*

"Diocletian and Maximian Augusti, and Constantius and "Maximian Caesars have ordained that (this) stone delimitating "the fields of the estate of Chresimianus should be erected under "the stewardship of Elias, magistrate (?) of the said place, by the "censor."

Several other boundary notices of the era have been found in Syria, and it would appear as if Diocletian ordered a sort of Domesday book, fixing the dimensions and value of landed possessions, as he endeavoured to decide the value of merchandise, by his edict "De pretiis rerum venalium."

ΔΙΟΚΛΗΤΙΑΝΟϹ
ΚΑΙΜΑϠΙΜΙΑΝΟϹ
ϹЄBK̄ΚΑΙ
ΚΩΝϹΤΑΝΤΙΟϹ

ΚΑΙΜΑ$\overset{\cdot}{\underset{\cdot}{\text{Ξ}}}$ΙΜΙΑΝΟC
ΚΕCΑΡΕCΛΙΘΟΝΔΙ
ΟΡΙΖΟΝΤΑΑΓΡΟΥ[C]
ΕΠΟΙΚΙΟΥΧΡΗC$\overset{\cdot}{\underset{\cdot}{\text{Μ}}}$Ι
ΑΝΟΥCΤΗΡΙΧΘΗ
ΝΕΕΚΕΛΕΥCΑΝ
ΦΡΟΝΤΙΔΙΕΛ[ΟΥ]
CΤΑΤΟΥΤΟΥΤΟΥΔΙ
$\overset{\cdot}{\underset{\cdot}{\text{Α}}}\overset{\cdot}{\underset{\cdot}{\text{Κ}}}$ΗΜ

The letters with dots beneath are doubtful; those in brackets very faint.

JOSEPH OFFORD.

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3. *The Hebrew Graffito in the Golden Gate.*—Prof. A. Büchler points out that the above inscription, published in the last number (p. 165), should be read: אברהם בר לולינא חזק: "Abraham, son of Juliana, hail! [*lit.* be strong]." He adduces parallels to the strange form of Juliana from the Palestinian Talmud (*Orlah*, f. 61*d*, 19), and Arabic (*Zeit. d. morgenl. Gesell.* xxviii, 292; Nöldeke, *Tabari*, p. 60; Krauss, *Gr. u. Lat. Lehnwörter*, ii. 310*b*).

THE

PALESTINE EXPLORATION FUND.

The Nineteenth Quarterly Report on the Excavation of Gezer will be found to contain many items of great interest. For some years it had been known that the Egyptian king, Merenptah, the latter half of the thirteenth century B.C., had seized Gezer. An ivory pectoral, bearing his cartouches, has now come to light. The curious stamped jar-handles have received an addition in one which has the name "Memshath," without the problematical "to the king"(?). An inscribed weight, dated in the third century B.C., is of interest as being the only dated object as yet found. A number of singular little "votive altars," found in the upper stratum, are covered with scenes which it will tax the ingenuity of the antiquarian to explain; Mr. Macalister throws out the conjecture that they come from a temple, possibly the one destroyed by Simon Maccabaeus. A unique object is the pottery model of a boat, dating from the time of the monarchy; one is naturally reminded of the naval activity of the age of Solomon and Jehoshaphat. In spite of some difficulty in obtaining labour, Mr. Macalister is able to report good progress in the systematic clearing of the mound. The trenches are being completed as quickly as possible, and it is necessary to remind our readers once more that the permit for the excavation of Gezer lapses next March.

A German appreciation of the work of the Palestine Exploration Fund will be gratifying to our readers and subscribers. It is given in the *Mittheilungen und Nachrichten des Deutschen Palästina-Vereins* for the current year (pp. 54 ff), by Dr. P. Thomsen, of Dresden. In introducing a detailed account with plans of Dr. Bliss's excavations on the South-west Hill and about Siloam, he speaks of "the brilliant results" of the latter: "A compilation of the reports

published in the *Quarterly Statements*, 1894–1897, is furnished in *Excavations at Jerusalem*, 1894–1897, by F. J. Bliss (plans and illustrations by A. C. Dickie), London, 1898, a volume of the highest value for the topography of Jerusalem. Apart from an article by Guthe ('On the Position of the Valley-Gate of Jerusalem,' *Mittheilungen und Nachrichten des Deutschen Palastina-Vereins*, 1895, pp. 10–15), and some papers named later on, the important results of this English undertaking have not yet been reviewed in German publications; they may, therefore, be put together here." Then follows a careful and appreciative account of Dr. Bliss's discoveries, with sketches reproducing his plans, by permission of the Palestine Exploration Fund.

Dr. Thiersch, who, with Dr. Peters, described the remarkable Painted Tombs in the Necropolis of Marissa (below, p. 266), sends us a reprint from the Annual of the Royal German Archaeological Institute in which he gives a general summary of the results achieved by the Palestine Exploration Fund in the excavation of Lachish.

We regret to have to announce the death of Mrs. Blyth, wife of the Bishop of Jerusalem. For some weeks her many friends had been very anxious about her health, which was affected by an illness in the beginning of May. The doctors decided that the best hope was that she should be taken home, as, being a lover of the sea, she was most likely to regain strength on the voyage. With the Bishop, and one of their daughters, she left Port Said on Tuesday, the 14th June, but died at sea on the following Saturday. A memorial service was held in St. George's Church on the 23rd.

Dr. Selah Merrill, whose book, *Ancient Jerusalem*, is reviewed in the present number, finds the climate in Georgetown, British Guiana, where he has been stationed as United States Consul, too trying, and has been ordered by his medical adviser to go to the States for a period of complete rest. He is now residing at Andover, Massachusetts.

An important article on "Hirudinea as Human Parasites in Palestine," from the pen of Dr. E. W. Gurney Masterman, appears in the journal *Parasitology*, June, 1908.

We have received from the Rev. Asad Mansur, of Nazareth, a copy of his new Arabic Geography of the Holy Land. It gives a list of biblical place-names with their modern identifications, and was drawn up for the use of the schools in the hope of raising the interest of the natives in the geography of their land. The price is 2s., with special allowance for schools.

Mr. Macalister writes that there has been a great plague of locusts in Jericho, and fears were entertained that they would move westwards and destroy the summer crops.

At the Fifteenth International Congress of Orientalists, held at Copenhagen, August 14th to 20th, the Palestine Exploration Fund was represented by Dr. C. D. Ginsburg of the Executive Committee. The editor was also present, as one of the representatives of the University of Cambridge, and both were among the relatively few Englishmen who contributed papers. We quote the following from *The Guardian* of September 9th:—"Dr. Ginsburg gave an account of his new and critical edition of the Hebrew Bible which is being printed as a memorial of the centenary of the British and Foreign Bible Society. Specimen pages were presented to the Congress, and Dr. Ginsburg explained that the text of Jacob ben Chayim (1524–5) was printed with the accentual and other variations from over seventy MSS. and twenty printed editions. Mr. Stanley Cook dealt with the excavations in Palestine. He observed that the archaeologists, who found no break in the culture of the land, confirm the critical view that there was no sweeping Israelite invasion. A subsequent marked deterioration in pottery formed a dividing line between the old culture and the later phases which overlapped with the Seleucid age, and he associated this feature with the history from the fall of Samaria to the Exile, when there were changes in the population. This period also marked a dividing-line in the religion and the legislature; and from the literary criticism, the earliest consecutive compilation in the Old Testament, the Deuteronomic, must date from the time when these vicissitudes were taking, if they had not already taken, place. He suggested that some of the details in the account of the Israelite invasion and settlement which were regarded as ideal or unhistorical, might really refer to the vicissitudes in and immediately after the Assyrian age."

The attention of those interested in the subject of the Exodus of the Israelites is called to a new map of the "Desert of the Wanderings," from Mount Hor on the east to the Suez Canal on the west, and from Mount Sinai in the south to Beersheba in the north, which has been compiled by the War Office, and is based principally upon the sketch surveys of the Palestine Exploration Fund (scale 4 miles to the inch). In eight sheets, price 1*s.* 6*d.* per sheet.

Judas Maccabæus, by Colonel C. R. Conder, R.E. This interesting little book was among those of which the whole edition was destroyed in the fire at Messrs. Bain's warehouse last year. It is now reprinted and can again be supplied (4*s.* 6*d.*) on application to the Secretary.

"*Golgotha and the Holy Sepulchre*," the last work of the late Major-General Sir Charles Wilson, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D., etc., is now ready. In this work the late Chairman of the Executive Committee of the Palestine Exploration Fund has brought together for the first time all the evidence which the most exhaustive research enabled him to collect bearing on the subject of these Holy Sites; and probably no man living had at once so intimate a knowledge of all investigations in the modern Jerusalem and so complete an acquaintance with what has been written about the Sites from the time of Constantine onwards. The price of the work (demy 8vo) is 6*s.*, by post 6*s.* 4*d.*, and cheques should be made payable to the order of George Armstrong, Acting Secretary to the Fund, and crossed "Coutts & Co."

The first edition of Mr. Macalister's work, "*Bible Sidelights from the Mounds of Gezer*," was quickly sold out, and a second edition is now on sale. It has been written to show how the results of digging in Palestine should appeal not only to the scientific anthropologist or archaeologist, but also to the Bible student who has no special interest in these sciences. The book contains a brief synopsis of the work of the Fund from its foundation to the present and a description of the site of Gezer, and its history. Price 5*s.* 4*d.*, post free.

The *Painted Tombs of Marissa*, recently published by the Fund, is now recognized as a very important contribution to the history

and archaeology of Palestine in the last centuries before our era. It may be mentioned that the leaflet containing the result of the investigations by Mr. Macalister at the Tombs has been published, and can be had on application to the Acting Secretary by those who possess the volume.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers. Those which are sent by Mr. Macalister, illustrating the excavations at Gezer and which are not reproduced in his quarterly reports, have been held over for the final memoir.

The attention of subscribers and others is called to *A Table of the Christian and Mohammedan Eras*, from July 15th, A.D. 622, the date of the Hejira, to A.D. 1900; price by post, 7*d*. Also to the *Meteorological Observations at Jerusalem*, with tables and diagrams by the late Mr. James Glaisher, F.R.S. Tourists and all desirous of accurate information about the climate of Jerusalem should not fail to send for a copy, price 2*s*. 6*d*.

The attention of subscribers is also called to a work by Sir Charles Warren, entitled "*The Ancient Cubit and our Weights and Measures.*" He brings evidence to show that all weights and measures (except those of the metrical system) are derived from one source—the double-cubit cubed of Babylonia.

The Museum and Library of the Palestine Exploration Fund at Jerusalem are in the Bishop's Buildings, near the Tombs of the Kings, where the use of a room has been kindly permitted by the Rev. Dr. Blyth, Bishop in Jerusalem and the East. The Museum is open daily, except Sundays, and the Honorary Secretary, Dr. D'Erf Wheeler, will give all information necessary.

The "*Flora of Syria, Palestine, and Sinai*," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s*.

The income of the Society from June 19th, 1908, to September 19th, 1908, was—from Annual Subscriptions and Donations, including Local Societies, £574 12*s.*; from sales of publications, &c., £54 14*s.*; from lectures, £15; making in all, £644 6*s.* The expenditure during the same period was £524 13*s.* 5*d.* On September 19th the balance in the bank was £714 16*s.* 4*d.*

Subscribers who have not yet paid will greatly facilitate the Committee's efforts by sending their subscriptions in early, and thus save the expense of sending out reminders, as the outgoings on the excavations at Gezer will be a heavy drain on the funds. Special donations during the quarter have been received from—

	£	*s.*	*d.*
Walter Morrison, Esq., J.P., *Hon. Treasurer*	400	0	0
First instalment of legacy bequeathed by the late Miss Mary Ropes, of Salem, Mass., U.S.A., May 26th, 1908 ...	205	2	7
Mrs. Schuster	20	0	0
H. E. Dixon, Esq.	9	0	0
Messrs. A. and C. Black	5	5	0
Mrs. Mackinnon	5	5	0
James Melrose, Esq.	5	0	0
	£649	12	7

Subscribers to the Fund are reminded that, whilst the receipt of every subscription and contribution is promptly acknowledged by the Acting Secretary, they are now published annually, and not quarterly. A complete List of Subscribers and Subscriptions for 1907 is given in the Annual Report published with the April number.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries. The Rev. J. Garrow Duncan, The Manse, Kirkmichael, Ballindalloch, N.B., has kindly consented to act for Banffshire.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from

Miss Mary A. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

Subscribers and others may be reminded that the new Raised Map of Palestine, constructed from the Surveys of the Palestine Exploration Fund by the Acting Secretary, is ready. It is on the scale of $6\frac{1}{4}$ miles to the inch and measures 3′ 6″ × 2′ 6″. It has already been used with great success by Professors of Old Testament history, and by teachers in Sunday Schools, and may be especially recommended for large classes of students. On view at the office of the Fund; further particulars may be had on application.

A complete set of the *Quarterly Statements*, 1869–1905, containing the early letters (now scarce), with an Index, 1869–1892, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Acting Secretary, 38, Conduit Street, W.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s*. A catalogue describing the contents of each volume can be had on application to the Secretary, 38, Conduit Street, W.

The Museum at the office of the Fund, 38, Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

Photographs of the late Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area and Justinian's Church, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. The four photographs, with an explanation by Dr. Schick, can be purchased by applying to the Acting Secretary, 38, Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced prices.

The Committee acknowledge with thanks the following :—

"Échos d'Orient," July.

"Abou Samra Chanem ou Le Héros Libanais." By Khalil Hammam Faiez. (In Arabic.)

"Palästina," Heft 4. (Pastor Eberhard, on the Importance of Palestinian Exploration for the Bible, deals especially with Gezer.)

"The International Journal of Apocrypha," July.

"The Biblical World," June: "Chorazin and Bethsaida." By Dr. Masterman.—"The Astro-Mythological School of Biblical Interpretation." By Prof. G. A. Barton.—"The Jewish Colony and Temple at Assuan." By J. M. P. Smith.—July: "The Entrance of Hamath." By Prof. G. L. Robinson.

"American Journal of Philology," Vol. XXIX, 2: "The Ancient Religions in Universal History." By Grant Showerman.

"Hirudinea as Human Parasites in Palestine." By Dr. E. W. G. Masterman. Reprinted from "Parasitology," June, 1908.

"Al-Mashrik: Revue Catholique Orientale Mensuelle."—"L'Agriculture dans l'Irac." By Mag. J. R. Ghanimé.—"L'Histoire de Damas d'Ibn Qalânisi." By P. L. Cheikho, S.J.

"Petra und seine Felsheiligtümer." By Prof. Dr. Gustaf Dalman.

"Anciennes Civilisations Orientales" and "la Protohistoire Orientale." By René Dussaud. (From the Association pour l'Enseignement des Sciences Anthropologiques.)

&c., &c.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

For list of authorized lecturers and their subjects, *see* end of the Journal, or write to the Secretary.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

Form of Bequest to the Palestine Exploration Fund.

I give to the Palestine Exploration Fund, London, the sum of _____ to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of Legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

Note.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

*** As we go to press, Mr. Macalister reports that he has discovered at Gezer a small limestone tablet bearing an inscription in old Hebrew characters of about the sixth century B.C. From the frequent repetition of the word *y-r-ḥ*, "month," it may be some kind of calendar, but photographs will be sent, and a complete description will be printed in the next number of the *Quarterly Statement*.

NINETEENTH QUARTERLY REPORT ON THE EXCAVATION OF GEZER.

Sixth of the Second Series.

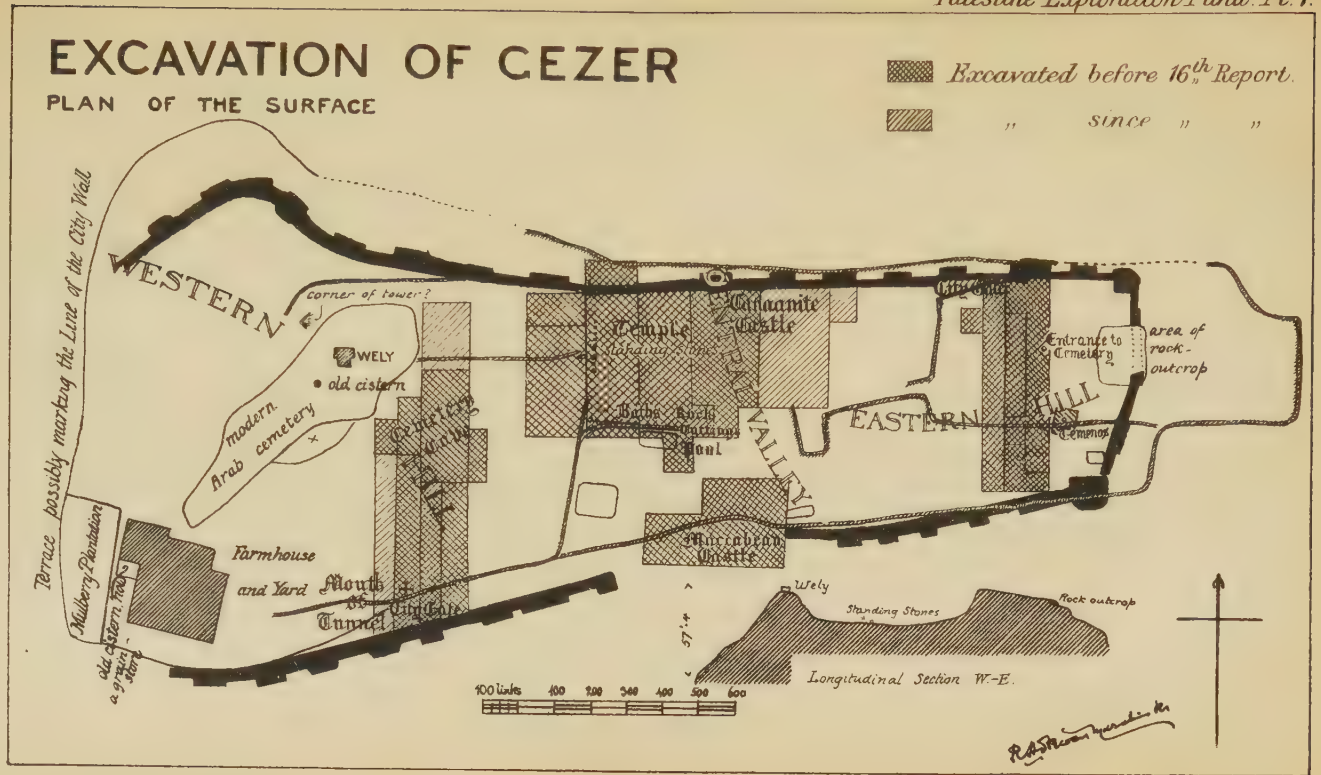
11 *May*—10 *August*, 1908.

By R. A. Stewart Macalister, M.A., F.S.A.

The harvest of the winter crops falls annually within the months of May to July, and, in consequence, it becomes difficult to obtain labour—impossible, indeed, to find a sufficiency of able-bodied workmen for the excavation on the hill-top itself. As in the corresponding part of last year, I employed such men as I could get in a (not very successful) search for tombs. When the harvest ended I returned to the hill, and have since been concentrating the work on the task of joining the two great pits in the Central Valley and on the Eastern Hill. An inspection of Plate I will show the additions that have been made to the area examined, since the report published in the January number. One trench has been completed, southward from the village grave-yard, through the deep débris west of the great water-passage, or tunnel, that has been for some months the centre of interest; the two trenches cut partially over the Western Hill, during the first permit, have been carried completely across the mound; three short trenches have been cut at the western side of the Central Valley excavation; and a fourth in the same neighbourhood has, at the moment of writing, been just begun. The débris here is shallow—not more than 5 to 6 feet at the northern end of these trenches, deepening to about 10 feet at the southern—and I hope by the end

EXCAVATION OF CEZER

PLAN OF THE SURFACE



Harrison & Sons Lith. St. Martins Lane W.C.

of September to have turned over all the area to the north of the word "EASTERN" on the plan. The part south of this area I shall probably have to leave; my present idea is to dig one more trench across the Western Hill after the "joining up" of the central and eastern pits is completed. The soil on the Western Hill being very deep, and being at present much cumbered with lofty heaps of waste earth from the old trenches, progress will necessarily be slow, and I doubt whether it will be possible to examine any more of the mound before next March, when the permit lapses.

Just about the beginning of the harvest I suspended the work for a fortnight, during which I took advantage of the now completed carriage road to pay a short visit to Nâblus. This is the only interruption that has taken place during the quarter.

§ I.—Additional Note on the Cave with Rock-Scribings.

While preparing a complete series of drawings of the rock-scribings in the cave described in the last report, I made one or two further observations which lead me to infer that the graffiti, notwithstanding their remarkable resemblance to the well-known Palaeolithic drawings, cannot antedate the Neolithic Period. One point is the plan of the cave itself, which is artificial, and is too well and truly made to be the work of men in so primaeval a stage of culture. Another is the striking fact that all the recognisable animals in the series belong to the *recent* fauna of the country. Thirdly, and most important, one graffito evidently represents a stag being killed with a bow and arrow. The figure of the huntsman is not represented, but stag, arrow, and bow are easily recognisable. It is a very doubtful question whether this instrument was known in Palaeolithic times. The result by no means detracts from the interest of the graffiti; quite the contrary, for though the art of the Palaeolithic Period is now fairly well known, the Neolithic Period has hitherto by no means produced so many or so striking examples.

§ II.—The Search for Tombs.

As above mentioned, the months of harvest were devoted to a search for tombs, with a small number of labourers. The result of this search has made me feel that the cemeteries round Gezer are

by now probably exhausted. Of course, the only way to be sure would be to strip all the soil off the rocks from the hills and valleys surrounding the city, which would be the labour of a lifetime; but as far as can be judged from such indications as are offered by the growth of plants, rock-scarps, suspicious-looking loose stones, and the like, there are now no more tombs to be found whose presence is betrayed in the surface of the ground above them.

Shortly after the close of the Fund's excavation at Beit Jibrîn, the fellahin discovered the great tomb of Apollophanes; and I have always had before me the possibility of a similar accident occuring at Gezer. But though Gezer was a city of considerable importance in the second and third centuries B.C., I now consider it improbable that such a tomb exists in its neighbourhood. Though the most elaborate of all the decorated tombs at Beit Jibrîn, the tomb of Apollophanes was by no means the only specimen of its class; others of lesser importance existed, and their empty chambers at least had become known to science. The probability is that the same would be the case at Gezer; and even if the great prize remained hidden, some of the minor decorated or inscribed tombs would surely have found a place among the couple of hundred that have been opened. However, not a single tomb with mural painted decoration, even of the simplest kind, has been found during the whole excavation; nor yet a single inscribed tomb. The only ornaments discovered on the chamber walls have been rudely scratched linear representations of the seven-branched candlestick and of a fish, both of which symbols are easily explained. In another tomb, a symbol like a Greek Ψ, with straight arms, inverted (⅄), was deeply cut on two sides of the chamber; this is not quite so intelligible.[1] In another, two ox-heads and a wreath appear in low relief over an inner door. This completes the meagre record of tomb decoration around Gezer.

The tombs discovered during the past season were by no means so important or interesting as those found in earlier tomb hunts. One First Semitic tomb was opened, with some early specimens of ware in it, but the most interesting was a small cavern with numerous interments dating about 1000 B.C., which does not

[1] It occurs to me as a possibility that this is a rude representation of that well-known classical symbol, the inverted torch.

happen to be a period of which many graves have hitherto been found. There must have been at least one hundred people crammed into this small chamber: their bones were mingled inextricably into an almost solid mass, cemented with hard clay, and interspersed, as usual, with sound and broken specimens of pottery. The drawings of objects from this tomb cover two large sheets. The bones were almost all rotten, and difficult to recover in any condition to make them useful: I succeeded in obtaining fifteen skulls, all more or less imperfect, but capable of being measured at least partially. A full description of this tomb may be reserved for the *Memoir*.

The most curious discovery made during these researches was that of a series of pits, hewn in the rock, exactly resembling the bottle-shaped cisterns which are so common inside the city walls, though most of them were rather smaller than the average cistern. There were about twelve of these opened, covering a limited area on the southern slope of the hill side. That they were originally dug for cisterns or grain stores is probable, although they were set so closely together. It is not impossible that the slope of the hill was once divided into small gardens, each with its own cistern. However that may be, the pits had been used for burial, some time during the ninth or tenth century B.C., to judge from the meagre remains of pottery found with the bones. I have written *burial*, but the word is hardly applicable; bones, not of human beings only, but of camels, cows, donkeys, sheep, and horses were cast together into the pits in confused piles. Especially noticeable were the horse bones, of which a greater number were found in these pits than in all the rest of the excavation put together.

My first idea was that the pits had been adapted as the receptacles for the bodies of besiegers, with their cattle, who had been slain by the defenders during an assault on the town. The apparent date of the deposits would well fit in with the capture of Gezer by the Egyptian contemporaries of Solomon. In favour of such a theory was the observation that one humerus had been cut cleanly through, apparently just before death. On the other hand, the presence of the bones of women and children, in small but not insignificant numbers, did not seem to countenance such a reading of the discovery. Casting about for other theories, two occured to me: the bones might have been those of the victims of an epidemic affecting cattle as well as men. The great epidemic of cholera here, in 1902, was succeeded in the following year by an equally

destructive cattle-plague. A plague affecting men and sheep is referred to in the Tell el-Amarna tablets (ed. Winckler, No. 89). The simplest theory, however, is on the whole the best, and the other alternative idea that presented itself is perhaps to be preferred to all—namely, that these bones simply represented the pauper population of the city, too poor to own graves, and therefore literally buried with "the burial of an ass," such as Jeremiah anticipated for King Jehoiakim.[1]

The total absence of deposits of any kind, save a few specimens of commonplace pottery of the period indicated, accords with the suggestion last stated. A single minute bead of cyanus was the only other object found in the whole series. Two or three potsherds were discovered, referable to an earlier period; among them were some fragments of a Cypriote milk-bowl and a Mycenaean *bügelkanne*. But these fragments might easily have been washed from the surface of the hill-slope into the pits at any time, and cannot have any weight in putting the bone-deposit back to an earlier period.

On the hill-side, at a higher level than these bone pits, a large cave exists, which was found within a couple of months after the beginning of the excavation in 1902, but which till now I have had no leisure to clear out. This work was also undertaken. It proved to be a long narrow cistern, of a figure-of-eight or dumbbell shape in plan, 54 feet in length, and 24 feet deep below the surface of the rock. The sides of the cave have been plastered with mud, smeared on with the palms of the hands; the separate handfuls, taking the mould of the concave palm, are easily traceable, though an attempt had been made to smooth them. In the floor there is a depression 4 feet 2 inches in depth, running along nearly the whole length of the chamber, approached by steps at its western end, leaving a bench all round this depression, about 3 feet 3 inches in breadth. On the northern side, a passage leads into the cave from a vertical doorway in a scarp of the rock: I could not, for lack of time, carry the excavation far enough to discover the nature and extent of the latter: it may possibly be a counterscarp to some rock-cutting under the outer city wall. There is at the eastern end of the northern side of the cistern a small chamber with an independent entrance, breaking into the large cave just under its roof: their connexion is

[1] Jeremiah xxii, 19.

probably accidental, the two caves being, as I suppose, originally independent.

There are two circular openings in the roof made by art, and two others that have been made by a fall of rock from the under side of the ceiling. The majority of the objects found in the cave were under the more westerly of the two artificial openings. Unlike the Fourth Semitic objects in the bone pits, these belonged to the Maccabean, or as I prefer to call it, Hellenistic,[1] Period. A valuable series of *iron* tools was extracted from the débris; these were more welcome than the bronze objects found with them, as the latter material has by now been illustrated with tolerable thoroughness by the discoveries inside the city, while the former has not. There were also a considerable number of human bones, probably of persons who had accidently fallen into the cave through the roof.

I am indebted to Dr. Masterman for help in examining the bones from the pits and from this cistern, and in searching for and diagnosing pathological indications. One humerus from the pits had an old but well-united fracture. Several skulls shewed marks apparently due to wens or tumours; in one fragment of a parietal bone a caries had made a hole about the size of a sixpenny-piece right through the bone. Two of the skulls from the Hellenistic cistern were abnormally thick, a condition in Dr. Masterman's opinion probably due to syphilis. It was noticed very markedly that nearly all the teeth *from the pits* were in good condition—sometimes overcrowded and crookedly set, sometimes much worn, and occasionally much encrusted with tartar, but very few showing signs of caries; while there was hardly a jaw, upper or lower, *from the cistern* in which the teeth were not wretchedly bad. This seems to be an inevitable result of an advance in civilization; but however it may be explained, the contrast between the two periods in this respect is very noteworthy.[2]

[1] Perhaps *Hellenizing*, the word which I first suggested (*Q.S.*, 1907, p. 204), would be more strictly correct; but the slight gain in accuracy does not seem to me sufficient to justify the constant employment of so awkward a word. Moreover it involves in its use solecisms analogous to the expressions "Crusading church," "Crusading fortress," so frequently to be seen.

[2] It must be remarked that about the worst set of teeth found during the excavation adorned a skull discovered in a cistern of the Second Semitic Period: but this is an isolated case. Dental caries was *known* from the beginning, but it does not appear to have become widespread till the Hellenistic period.

§ III.—The Sanctuary of Sheikh Jaub'âs.

For some time I have had it in mind to include in this series of reports an account of a structure on a hill-top, about twenty minutes' walk south of Gezer, but till now have not had time to take the necessary measurements. A plan, copied from one plotted on the spot,[1] is here given (Fig. 1).

Though much damaged, the original design is clear. An outer square enclosure, 57 feet 5 inches long, and 53 feet broad, is

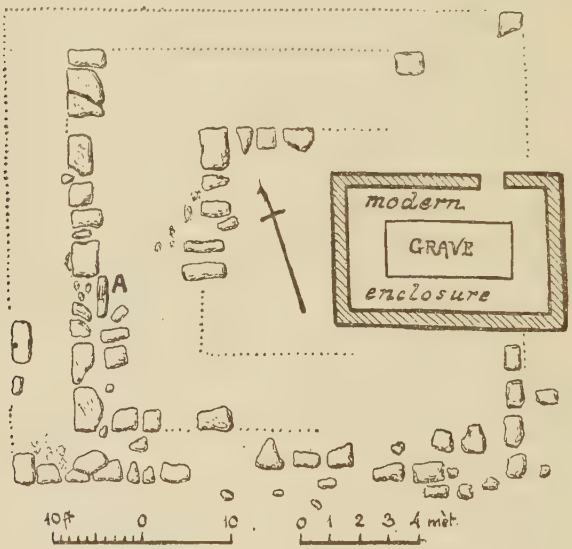


Fig. 1.—Plan of Sanctuary of Sheikh Jaub'âs.

marked out by large stones, which seem to have been carefully and regularly set, except on the southern side, where the plan is a little obscure. The surface is grass-grown, but it appears as though a pavement of small stones had been laid down inside the area marked out by the large stones. Inside this court is another precisely similar, and raised a few inches higher: it measures 51 feet by about 43 feet 2 inches. The western side is not quite straight, but bows

[1] Each individual stone is drawn from actual measurements.

outward: the sagitta of the curve is about 1 foot 6 inches long. Just inside the western boundary of this court, and near its middle, is the only stone on end now remaining in the structure (A in the plan): it is a slab about 3 feet high and the same in breadth, standing on its edge. This court seems also to have been paved, and to have included a third court within it; the latter is much destroyed, but was apparently about 32 feet by 28 feet in area.

The stones have been removed from time to time, probably to provide material for old vineyard boundaries, which still remain here and there on the hillside. But the sanctity of the place remains, and has been inherited, as is so often the case, by the local saint, whose tomb is erected over the eastern boundary of the structure, and in all probability is built up of materials taken therefrom. The grave stands in the middle of a rudely built enclosure of small field stones, with an entrance on the northern side: this enclosure measures 24 feet 2 inches by 18 feet 10 inches. Its outline is *hatched* on the accompanying plan. The Muslim saint effectually prevents excavation being made round this curious structure: but I hardly think that much would result therefrom. The rock crops out all round, and the stones of the outer court appear to be laid almost directly upon its surface. There is a little pottery strewn around, but none very ancient. A large cistern is hewn in the rock 37 feet to the north of the enclosure; its present depth is 32 feet, but as it is much cumbered with rubbish at the bottom no doubt it is considerably deeper.

Not far from the shrine, on the northern slope of the ridge, whose highest point it crowns, is a remarkable artificial cave, now known as *Shakif ez-Zutt*, or "the rock-hollow of the gipsies." On its western wall, near the entrance, are carved symbols, resembling those found by Renan in certain caves in Phœnicia, indicating that the cave had probably been used in an Astarte-cultus.

The structure, whatever it may be, seems to be built after the fashion of a Semitic religious shrine. Though on a small scale, it displays the essential plan of an inner court inside and rising above an outer court, which, when carried to its ultimate limits, develops on the one hand into a Babylonian *ziggurat*, on the other hand into a structure of the plan of Solomon's Temple: and which, by indefinitely increasing the number of courts and diminishing the difference of area between successive pairs, develops at length into a pyramid. To pursue this question further, however, would lead

me into mazes of conjecture for which I have at present neither materials nor space. I think, however, enough has been said to indicate the interest of this small building.

§ IV.—The New Trenches.

The trenches that have been excavated recently in the Central Valley are, as has been said above, comparatively shallow. There was no significant occupation upon their area, till the time of Meren-Ptah. An ivory pectoral with a figure of the king adoring the god Thoth, and the cartouches of Meren-Ptah, were found on the rock at the northern end. On the reverse is a group of radiating lines. The straight side is $2\frac{1}{4}$ inches long. The ivory having shrunk a little, the circles—originally, no doubt, struck from the small dot in the centre above the discs with uraei—have flattened. The broader parts of the cuttings retain the green enamel with which they were filled. This object is specially interesting in connexion with the allusion to a capture of Gezer on the famous "Israel" stele; it is the first time we have come in contact with Meren-Ptah himself inside the city.

That there should be an open space inside the city walls is only natural. Some such area was necessary for keeping cattle in in time of siege; and the northern side of the Central Valley seems to have been, at Gezer, the traditional place set apart for this purpose. After the Meren-Ptah occupation we find here but one other, dating from about the time of Solomon. At the *southern* end of the newly-cut trenches the case is different: here nearly all the strata are fully represented, and just at the moment of writing a most important house of the Hellenistic Period is being cleared out. I shall be better able to describe this structure in the next report, by which time its examination will be completed. North of it there seems to have been a rubbish heap dating from the latter half of the Hebrew monarchy almost to the time of the Maccabean conquest, and many signs were detected of the burning of débris by great fires from time to time. An old cistern had been adapted as an ashpit by the dwellers in the house, and a most valuable series of contemporary types in pottery was obtained from it.

This ashpit must have belonged to a date quite early in the last period of the city: not later, I should say, than 500 B.C. One of the "Astarte-plaques" of the old type was found with the pottery;

and a very interesting and perplexing stamped jar-handle. The latter bore the two-winged flying disc and the name "Memshath," *but did not bear, and never had borne, the word* לבילך, till now always associated with this puzzling name. Was this because the jar was intended for export to the kingdom of Israel, outside the jurisdiction of the Judahite monarch under whose patronage the Memshath jars were made? It is true that several of the "royal stamps" have been found at Gezer already, all of them inscribed as usual "for the king"; but Gezer, though actually in the territory of Israel, was on the border of Judah, and a mixture of types is therefore only to be expected. The question must await light from future discoveries. Another of the Hebrew potter's stamps, so rare at Gezer, was found in this rubbish heap. It was much disintegrated, but with a little trouble it became clear that the inscription was one of those already known—לעזר חגי (Of Azar[iah] son of Haggai).

Fig. 2.—Inscribed Weight.

Two inscribed weights, found north of the large house above mentioned, just under the surface of the ground, call for special notice. The first (Fig. 2) is a rectangular disc of lead, $2\frac{1}{2}$ inches by $2\frac{3}{4}$ inches, with a sunk panel in one side inscribed ΛΑΓ ·ΑΓΟΡΑΝΟΜΟΥΝΤΟC CωCΙΠΑΤΡΟΥ Μ "The year 33; of Sosipater, ruler of the market." The Μ probably means 40, the amount of the weight. I am not sure that this character is not meant to be a monogram, ΜΤ or ΜΓ. It is followed by a sign that I cannot identify, probably a mere stop. The weight is 319 grammes. The year 33 of the Seleucid era, to which I presume the date must be referred, corresponds to B.C. 279.

This weight has the interest of being the only dated object as yet found in the excavations.[1]

The other weight is a dome shaped one of quartzite, inscribed ϗ⊥. It is 94·60 grammes.

Two other objects from the same place are of considerable interest. One is a block of soft limestone, 3⅞ inches by 2⅜ inches by 2 inches in maximum thickness: the horizontal section is triangular. Upon it is cut, or, rather, deeply scratched, the likeness of an animal with a long upright neck, like that of a giraffe. The other, which is a similar block of limestone, 3 inches by 2¼ inches by 1¼ inches, bears an animal essentially identical, but much more artistically finished. This stone bears an inscription, and it is certainly startling to find that the inscription reads, without the least doubt, ANTIOXOY (Fig. 3).

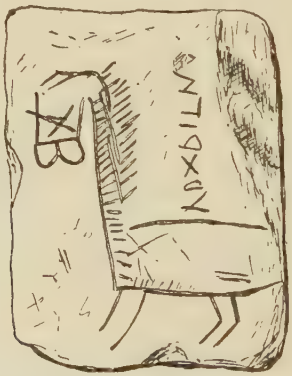


Fig. 3.—Representation of an Animal, perhaps a Giraffe.

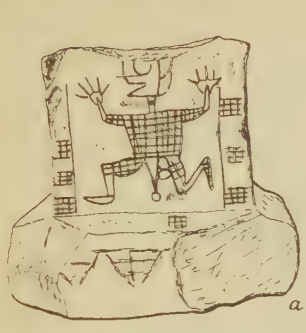
The giraffe was known to the Egyptians under the name *sr*, and represented by a special hieroglyphic sign. Did the Syrian king keep a tame giraffe here in Gezer or elsewhere, which caught the fancy of a caricaturist?

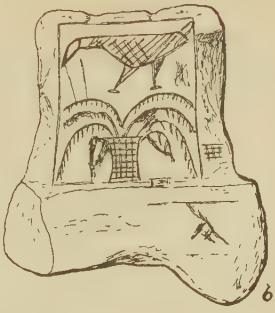
§ V.—Votive Altars.

A feature of the excavation from the first has been the number of small altars found in the upper stratum. These are of two kinds: blocks about 3 to 4 inches square resting on pedestals, or

[1] Owing to a smear in the lead it is *possible* to read the date ΔΠ, which would be 84 (B.C. 228). But the reading adopted above is the more probable.

VOTIVE ALTARS


a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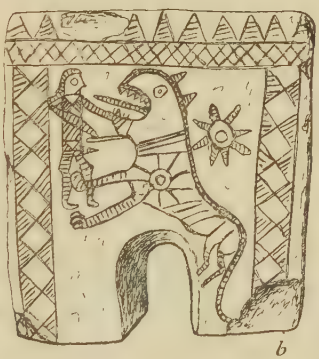
a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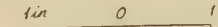


square cups, about 6 inches by 4 inches, with a foot at each corner. The latter were probably meant for incense burners, and usually show marks of fire.

Generally the sides of these altars are decorated in some way. Occasionally they are plain, or have a simple cornice moulding round the edge. In one, found some years ago in tracing the city wall, and not yet published, there was a rectangle cut on each of the four sides. The altar of Eunêlos, with its mysterious inscriptions, is the most interesting and important of the series yet found; but the two specimens, of which the inscribed sides are shown in Plate II, are nearly as remarkable.

The first bears, on two of its faces, a representation of a figure executing a wild dance; on the other two a bird alighting on a palm tree. What may be the significance of these strange drawings is very difficult to say. As difficult is the explanation of the figures scratched on the incense box in the lower part of the sheet. Is the man struggling with the animal a rendering of the story which, in the version of St. George and the Dragon, is localised at Lydd, only a few miles away from Gezer? But what then signifies the star behind the animal? The box being fractured, the side scenes are imperfect, and the opposite end scene lost. One side may have represented a deer-hunt, the other side bears a man struggling with an animal.

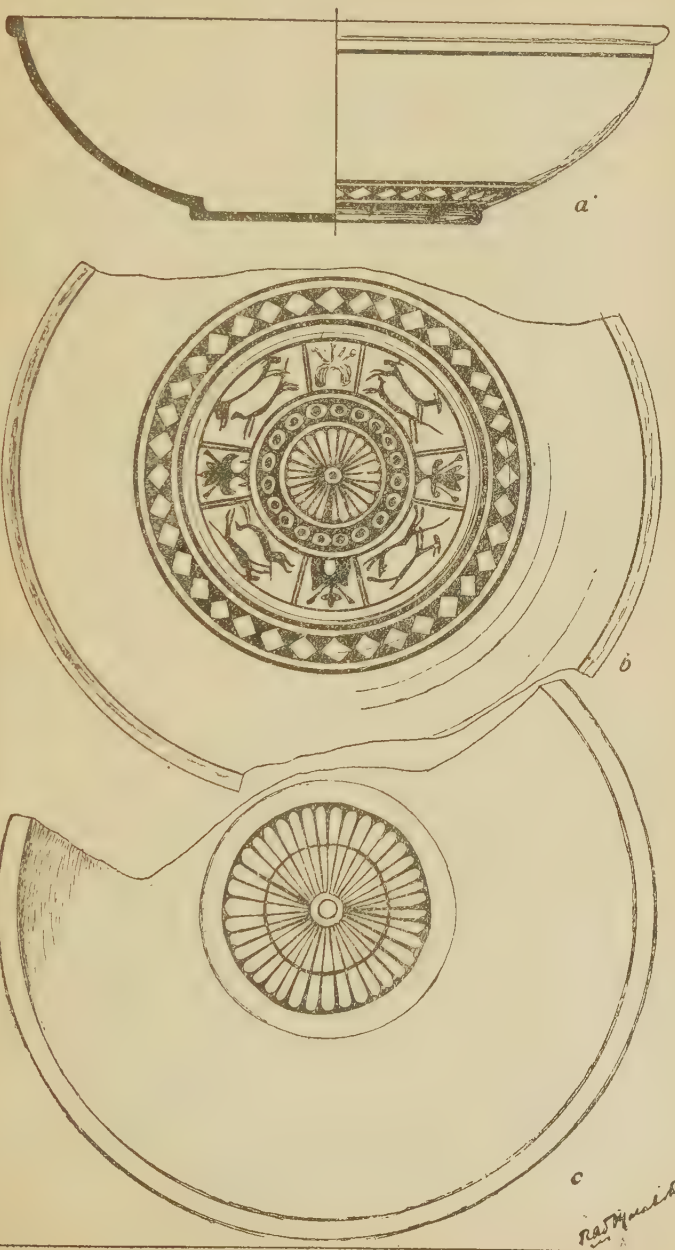
Close by these was found a third, of the incense-box type, measuring 3 inches by 3 inches, and $2\frac{1}{2}$ inches high. The only decoration it bears is a chequer of vertical and horizontal lines on one side, making three horizontal squares of six rows each.

It is not improbable that these objects were deposited in a temple, the foundations of which may yet be uncovered. Most of the "votive altars" have been found in this neighbourhood. There was some large building of the Ionic order on the hill at one time—fragments of rude mouldings, and a volute of one of the capitals, were found cast into the great reservoir in the Central Valley—drawings of which have been deposited some time ago in the Fund Office. It may be that these are the *disjecta membra* of an "idol house" destroyed by Simon Maccabeus.

§ VI. Miscellaneous Objects.

(1) In a cistern associated with pottery contemporary with the XVIIIth Egyptian dynasty was found a fragment of a singular

PORCELAIN SAUCER



alabaster group, representing a man and an animal, apparently a pig. Owing to the nature of certain details of the sculpture a full description or illustration can hardly be published here: the species of the animal suggests that the figure may in some way refer to Adonis worship.

(2) The cistern already mentioned as having contained pottery and other objects of the latest period was found, when further examined, to have underneath this rich layer a thick stratum of yellow earth—evidently decomposed brick. Apparently some adobe building had been pulled to pieces and thrown into this receptacle. Several days' discouraging work was necessary to empty out this stuff, which, naturally, contained no antiquities. We were rewarded however, by striking another rich layer at the bottom of the receptacle, which is not yet completely cleared. So far, fragments of three fine alabaster vases, much broken but nearly complete, have been found, with an enamelled spindle-whorl, or button, bearing the cartouche of Rameses II, and some remarkable fragments of painted and other pottery of the same date. The only part of the deposit that at present need be illustrated is the beautiful saucer shown on Plate III. It is in many fragments, and so far, only a few small scraps have been recovered—enough, fortunately to reconstruct the whole with certainty. The bottom is perfect, and enough coherent pieces remain to show the curve and chief decorative scheme of the sides. The vessel, when whole, was 2 inches high and $6\frac{5}{8}$ inches across. It is made of a light porous porcelain, of a greyish-white colour; the designs are incised and inlaid with cyanus, whose delicate blue colour shows up effectively against the white background. In the plate, Fig. *a* represents the inner and outer elevations of the vessel. Fig. *b* shews the design on the under side, the vessel being turned bottom upwards. A simple rosette of twenty-seven radiating lines is surrounded by nineteen white ovals on a blue ground, around which again are a series of compartments alternately narrow and broad—the former containing a plant, the latter two animals. In one of the narrow compartments the cyanus has lost its colour and the design is barely decipherable. Around the bottom of the side runs a row of white lozenges on a blue ground: above that is a space which I am obliged to leave blank, though it seems to have been decorated with an elaborate floral pattern: the pieces so far recovered are not sufficiently well preserved to enable me to make it out. Fig. *c* represents the

inside of the bowl, turned bottom downwards: it is decorated simply with a rosette of thirty-nine rays—rather irregularly drawn, as I have endeavoured to show it in the copy.

(3) The model of a boat in pottery, represented in Fig. 4, was found in the Solomonic stratum which, as we have said, overlays the buildings contemporary with Meren-Ptah at the northern end of the new trenches. It is especially interesting in connexion with the great naval activity of that period. It is roughly hand-modelled in coarse brown pottery, 7 inches long, 2 inches broad, and $2\frac{3}{4}$ inches across. The model is not sufficiently well made for us to determine minutiae of construction; but save that the ship is pointed at both ends it closely resembles a modern fishing-boat in general outline. There is a strong and prominent keel, which turns upwards, and ends in a short post at both ends (the stern end is broken). The

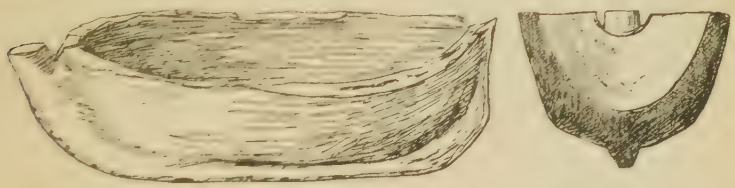


Fig. 4.—Pottery model of a Boat. (Sketch and Section.)

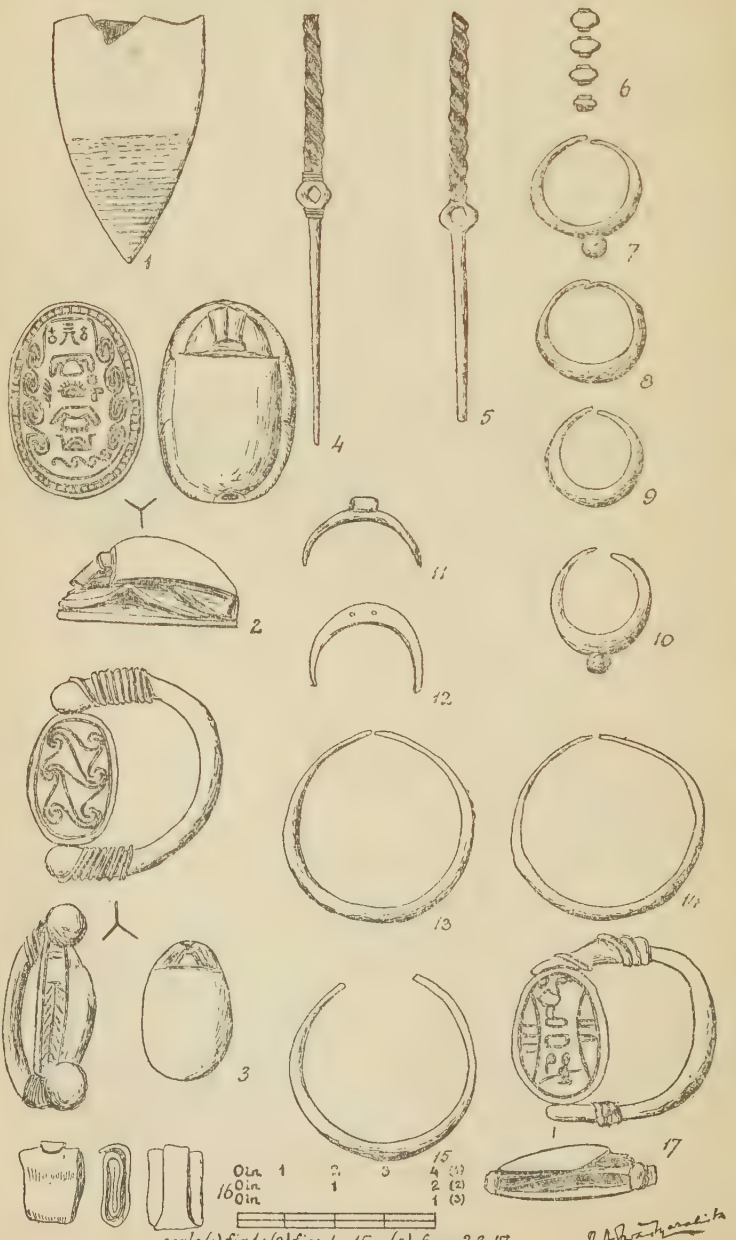
bulwarks are notched in order to leave this post isolated, as the section shews.

§ VI*a*. A Collection of Ornaments.[1]

A small hoard of ornaments was found in the trench in the Central Valley, the collection represented in Plate IV, and is evidently the jewellery of some Gezerite lady of the time of the XIIth dynasty or of the Hyksos. The objects were deposited in the bottom of a broken jar which is represented (to half the scale) in Fig. 1 of the plate. It is of light drab ware, and is ornamented with faint combing, encircling the lower part of the base. The hoard consisted of two scarabs in steatite, one of them unmounted, the other set in a silver ring; and the following objects, all without exception of silver:—(1) Two hairpins, one of them $4\frac{1}{2}$ inches long, the other broken, with an eye on the centre of the shank above which is a spiral head and below which is a tapering point (Figs. 4, 5, on Plate IV). (2) About twenty-five beads, four of which are shown in Fig. 6; their appearance will be sufficiently understood by

[1] Held over from the July report.—*Ed.*

HOARD OF ORNAMENTS



scale (1) fig 1; (2) figs. 4-15; (3) figs. 2,3,17

a glance at the illustration. Most of these were corroded into a solid mass. (3) Four small finger-rings, consisting of loops of silver, the points not quite meeting; thickest in the middle and tapering to the two ends. In two of these—which are possibly ear-rings—a small sphere of metal projects from the side of the ring (Figs. 7–10). (4) A pendent crescent, with a loop for suspension (Fig. 11), and a small crescent cut from a flat disc of silver with two holes for sewing to cloth (Fig. 12). (5) Six bangles, all similar, consisting of plain loops of silver, thickest in the middle and tapering to a point. The external diameter is only 1⅜ inch. Three are shown in Figs. 13–15, the others are similar. (6) A strip of silver folded up spirally (Fig. 16). (7) Some miscellaneous laminae of silver, quite shapeless, evidently fragments of one or more destroyed ornaments. These are corroded into small lumps, and I have found it utterly impossible to dissever them, or to detect to what species of objects they may have belonged. Some of them seem to have formed part of a small silver chain. The two scarabs (Figs. 2, 3) bear the spirals and symmetrically disposed symbols characteristic of the scarabs of the XIIth dynasty. I have added to the plate a scarab of the Hyksos king Shesha, which was found on the same day and on the same level, a short distance from where the pot was deposited.

§ VII.—Conclusion.

As I write, the work of excavation has been suspended for a week in order to gain some time for making casts and for packing antiquities no longer required for illustration or examination; also to allow the workmen to finish their summer harvest of millet and sesame. All being well, I hope that this will be the last interruption before the work closes.

But, for various reasons, it is getting increasingly difficult to find labour. The exceptional rains of last winter, which hindered our work terribly, have produced an excellent harvest; and the lazy and improvident fellah, having enough to satisfy his immediate needs, prefers loafing about in his hut or his village guest-house to earning good wages by work in the excavations. Another, and yet more serious difficulty, is the growing scarcity of basket-carriers. The steady stream of money that has been pouring into Abû Shûsheh for the last five years has produced an extraordinary crop of marriages. Some fifty have taken place in that village of five hundred souls, each of which, of course, means a young woman withdrawn by her new domestic duties from work in the mound. There is now hardly a girl left in the village, with the exception of

a few children too small to be fit for work. In these difficulties I have been obliged to send for a contingent of labourers from the large village of Ni'âneh, two or three miles away—much to the chagrin of the Abû Shûshites and the men of Kubâb, who look upon the work as their own peculiar perquisite. But, though I have succeeded in getting a certain number of labourers from there, it is not very easy to keep them: for the Ni'âneh people are, at this time of the year, much in request by the Jewish colonists around, to work for them in the grape harvest; and they very naturally contrast the hard toil of the excavation with the easy labour of the vineyards, much to the disadvantage of the former. "When we work with the Jews," they say, "we get three quarters of a dollar a day, we sleep three hours at noon, and we are eating grapes the whole time"! The only counter-attraction I can offer is the possibility that by a stroke of the pick it may be given to one of them to add a chapter to the history of the world—but what is that when weighed against a day's ration of grapes, three hours' sleep and three quarters of a dollar?

THE IMMOVABLE EAST.

By Philip J. Baldensperger, Esq.

(*Continued from Q.S.*, 1907, *p.* 274.)

Among other trees to be mentioned are: The orange-tree. Though this has been thought by many to be the *tappûḥ* of Canticles, the name, *bortuḳân* (given to it as a corruption of Portugal, from whence it has been introduced into Palestine in or about the Crusaders' period), cannot be easily identified, for there is no reason why the old name should have been changed into a *foreign one*, if the tree had existed in Hebrew days. It is now only found in Jaffa and Saida, and apart from a few places where it has recently been introduced, it never occurs in the mountainous region, whereas the author of Canticles apparently chooses a tree in, or in the neighbourhood of, Jerusalem. It is true the apple-tree does not grow very easily, nor are the apples very large and good; but they

may have degenerated under careless gardeners, and no doubt the owners of the "parks" (Eccl. ii, 5) had fine apple-trees in those beautiful gardens of Urtas. Damascus produces fine apples, and the merchants when they want to praise the fruits of Damascus call out *Ya mâl es-Sham* and *Ya tufâḥ es-Sham*, "O the goods of Damascus O the apples of Damascus!" and to say of any thing that it is exquisite, they simply say *tufâh*.

The citron-tree (*lîmûn ḥamed*) is largely grown in the maritime towns, in several villages of the plain, and in the highest region in the mountains of Tannûr, near Beth 'Atab. Urtas has only very few trees now, but when Rauwolf visited Palestine in 1572–75 he found plenty there. As these trees do not stand severe winters they may have been destroyed partly by the cold, and partly by wars and storm. The sweet lemon is called *lîmûn ḥelû*.

The *trunj* or *kibbâd*, the largest of the citrus species, is bought by the Jews to ornament the booths in the feast of tabernacles. The fruit must be perfect, and costs from £1 5*s*. a-piece. It is supposed to be the "fruit of goodly trees" (Lev. xxiii, 40). The difficulty is to know whether citrons were imported at such an early date, or whether they were indigenous in Palestine.

The pistachio (*butm*) has little aromatic kernels; with the name compare the *botnîm* of Gen. xliii, 11.

The pistachio-tree (*pistacia vera*), *fustuk*, grows only in Syria; the nuts are very much appreciated, and are employed in the sweets known as "Turkish delights" (*râḥ et-ḥalḳûm*).

The carob-tree (*kharûb*) is half-wild, half-cultivated, and can be classed as one or the other.

The *beka'îm*, called mulberry-trees (2 Sam. v, 23, 1 Chron. xiv, 14) in Rephaim (probably near Bêt Nûba) and the Valley of Beka (Ps. lxxxiv, 7) are literally translated "weeping-trees"; in which sense it is not certain. Whether they were balsam-trees, dropping fluid, or whether the wind passing along the top of the trees produced the wailing sound so characteristic in cypress and fir-trees, must be left undecided. Mulberry-trees have not the flexible branches of the carob, which may also be meant, and which grow more spontaneously than the mulberry.

The sycamore-trees (*jumaiz*), which grow in the Shephalah (1 Kings x, 27), are still confined to the lowlands.

The palm-tree, *en-nakhle(t)*, the tree of the Bedawy and of Judah *par excellence*, is only met with here and there on the mountains of

Judea, and has certainly always been a tree of the plains: at least for the fruit-bearing palm. The fruit is called *balah* or *tamar*, which means simply "fruit." The palm-trees (Judges i, 16) grew more in the southern plains and along the Jordan and in Jericho. An occasional stray palm, as the one of Deborah (Judges iv, 5) in Mount Ephraim, was pointed out as a speciality, but did not bear any fruit.

Every town in the mountains has one or more palm-trees, especially around sanctuaries, as the palm "has the same juice of life as man," and is therefore a holy tree; but the real home of the palm is south of Jaffa. All maritime towns have palm-trees, and the branches are cut and carried before the funeral processions, and cords are made from the resisting fibres. The water-wheel wells were all furnished with palm-leaf cords before the iron era, so the palm-trees are less valuable now.

In Gaza and the Plain of Philistia the fruit ripens almost as well as in Egypt. Jericho, the City of Palm-Trees, cannot now boast of a single palm-tree. Josephus says: "In Jericho are beautiful gardens and palm-trees of different kinds (*Wars* iv, 8). There are some whose fruit when pressed gives honey, which differs hardly from the other honey so plentiful in this country." Again Josephus in the same chapter says: "The palm-trees growing along the Jordan are very fruitful because of the great heat; and so much the more are they unfruitful, as they are distant from the river." Wild palm-trees grow on the east shores of the Dead Sea.

The vine (*dâlie*[*t*]) grows everywhere. The best in Palestine are still the same, at the brook of Eshcol, near Hebron, where Joshua and Caleb brought the traditional big cluster (Num. xiii, 23). The fine grapes and their different uses have already been described. There are different kinds of grape-vines, both black and white, which begin to bear fruit in July. These first-grapes, called *dâbûky*, are excellent grapes for the table, they often have berries more than an inch, and bunches of a foot or more in length. The next finest table grapes are the *ḥamdâny*; the berries, though very large, are not so elongated as the former, and the bunch is more compact. The good wine-grapes are the *jandally*, which become ripe in September and October; very sweet, but numerous small berries and very long bunches. As the Fellahîn are mostly Mohammedans they sell the grapes to the Christians and Jews in Jerusalem or Jaffa, who make very strong wine out of them. The Christian

(Greek Church) inhabitants of Es-Salt (Ramoth in Gilead) have as fine vineyards almost as the Hebronites, but owing to the distance from Jerusalem, the centre of Palestinian commerce, they can but dry their grapes, and make excellent raisins (*z'bîb*), and sell them for exportation. Several villages north of Jerusalem have also very fine vineyards. The European, German, and Jewish settlers chiefly in the plain of Sharon and Philistia have planted immense spaces with vines, importing plants from Europe and America, as the indigenous plants, mostly in the hilly regions, were not thought to be so good for wine as the imported ones.

In Jericho, near the old castle, there was a phenomenal vine, bearing several thousand pounds of grapes every year. The vine, when I last saw it, some twenty years ago, was supported by hundreds of poles, covering a vast area, under which a man could walk and admire the spreading of the plant.

The vineyards are always surrounded by a dry stone wall (*jedûr*), and a *ḳaṣr* built in it. On the top of this loose-stone building they put a hut, which in summer only is covered by branches. Here the family lives, and from this elevated place the guardian can survey the vineyard, which, though fenced all round with thorn-bushes laid on the walls, is often visited by foxes, badgers, jackals, and sometimes thieves. Similar proceedings are referred to in Isaiah v, 2. Pruning is done in February, before the leaves sprout. This is done with the only instrument they possess, viz., the pruner *ḳaṣâbe(t)*. The vineyard is ploughed two or more times according to the time at one's disposal, and according to the work to be done in other fields. Carmel does not now show the splendour which the name deserves, but the German settlers have planted some very nice vineyards near Haifa, at the foot of Carmel. The Arabs are very fond of unripe fruit, but more particularly of unripe grapes (*ḥaṣrum*), which they can eat without flinching, however sour they may be. The *ḥiṣîr*, the fruit for which the Israelites longed in the wilderness (Num. xi, 5),—translated "leek" in the English version—may be the sour grapes or any unripe fruit, which they had in Egypt. The ripe grapes (عنب), by many at least, are hardly more favoured. The leaves of the vine are sold in the market for the *maḥshy*, an Arabian dish which is much appreciated.

During the day the men are generally away at other work, and the women alone guard the vineyards and fig-trees, during which time singing never ceases. Often they sing among themselves

a kind of round, one girl sings the first verse or lines, and a second one in a distant vineyard answers, and a third may join, and so singing never ceases from morning to night. These merry days are also remembered, and the prophet Isaiah alludes to the time when they shall cease amid the calamities of Israel. "In the vineyards there shall be no singing" (Isa. xvi. 10). The dry grapes (Num. vi. 3) were forbidden to the Nazarite, as was everything that came from the grape-vine.

The fig-tree (*t-t-ine-[t]*) is also universally known, even more than the vine. But the real land of the fig-trees, or of dried figs (*bilad el-kuttain*), is the north of Jerusalem: Ramallah, etc. There are many kinds of fig-trees, bearing early and late fruit, apart from the two kinds which all the fig-trees bear. The first figs (*bagtir*) are ripe at the end of May, in the warmer spots, and the ordinary figs begin in June or July. The *bagtir* are never plentiful and last only a few weeks, the *tin* are plentiful and often last many months: ripe figs are picked every morning, and by next morning another lot has come forth, and the small fruit grows out. These green figs, the *fag*, have no taste whatever, and are never eaten. The fig has no juice as long as it is not ripe. The *pag* (Cant. ii. 13) was looked for in hope of fruit very soon. There are different kinds of figs according to colour, season, etc., as the yellow, the black, the green, etc., etc. As fig-trees grow very easily, without water, they are spread far and wide over the country and planted like the vine, by setting a twig in the earth and giving it the necessary tilling. It may bear some fruit five or six years later, nothing worth much however, though still a beginning at all events. The ground must be well cultivated. Those who neglect this, or who sow wheat and barley in their fig fields, have but a middling harvest. The fig-trees are under the special care of the women, who gather the ripe fruit and put them in a prepared enclosure on the ground to dry. In Siloam they touch the almost ripe fruit with a stamp dipped in oil, to hasten the maturity. Where the trees are near the village, the fruit is carried home and put on the house-top to dry. The entrance is protected by thorn bushes, chiefly against dogs which are very fond of figs. This enclosure, or drying-place, is called *mustâh*.

The first-figs (Neh. iii. 12) are eaten by the passers-by or the owners, but are not specially cared for, and are never dried, as they would not keep. Having only a small amount of fruit at a time

the tree is shaken to make the fruit fall, but the real figs are not shaken, as the fruit is too soft and would break on the ground. When the fruit is more than ripe and the skin begins to wither, then they are tough and may fall to the ground without damage, if the women have patience enough to wait.

In the northern villages the dried figs, called *ḳuṭṭain* (though only in the Jerusalem or Judean colloquial Arabic), are made into long strings of several pounds each string. These are called *ḳalâ'id*, and are hung up or put in the store for winter. These perhaps correspond to the cake of figs (1 Sam. xxv, 18) which Abigail brought to David; for figs are not counted by the piece, and the *pelah* (Hebrew) means a division, and was probably a known division in the days of the writer.

In Syria the word *ḳuṭṭain* is not used for dry figs; but use is made of the term *tîn náshef*. This form is the general word for dry fruit in general, even as ordinary green fruit is called *ḳêṭ* (قيظ); perhaps the *ḳayiṣ* "summer fruit" which Mephibosheth sent to David when he fled from Absalom (2 Sam. xvi, 1). The fig-trees are not very large, but the branches are too weak to bear the weight of a person, and therefore the fruit is collected, by pulling the branches with a hooked stick (*'akafe*[*t*]), into a small basket (*ḳarṭalle*[*t*]), whence it is emptied into a bigger basket to be carried home.

Figs are eaten fresh only in the morning when the dew is yet on them, as they are considered unhealthy when the sun has warmed them. Owing to this supposition and to the softness of the fruit, it is rare to see any on the market in towns. They are sometimes put in a nice little basket and covered with big leaves, and brought as a present to some town friend, in this case only from villagers who live very near town.

"The Lord called thy name: A green olive-tree, fair and of goodly fruits" (Jer. xi, 16), and so the olive-tree (*zeitûn*) is still the most appreciated of all trees in Palestine. The Christian villages of Bethlehem, Bethjala, Ramallah, Bîr Zeit (cistern of oil), and others in Judea are the most renowned for their fine oliveyards; 'Ajûr has the best oil in the south. The towns of Ramleh, Lydda, and Nâblus have vast oliveyards, and derive their riches mostly from them. Asher is still the oil-country (Deut. xxxiii, 24), and the village et-Tireh, between Acca and Nazareth, has the finest oil in the north.

The olive-tree, said to reach an age of 700 or 800 years, is perhaps perpetual, for it is not planted by seeds, but by pieces cut off the root of the old olive-tree. These small blocks (*ḳarmiye*[*t*]) cut from the root are planted in a prepared deep hole and are left to grow ten or more years, then they are transplanted as *shutl* (شتل), and great care is taken of them in the first year. They are watered in summer and big stones surround the stem at a distance to keep the root a little moist, a thorn bush is put in the opening, thus preventing the sun from scorching it. The Psalmist compares these olive plants (Ps. cxxviii, 3, Heb. *shâthîl*) to the children around the table. Sometimes a young branch is allowed to grow from the foot of the olive-tree. These, when several feet high, are detached from the root of the parent tree and transplanted; they are called *tanakil*. The young olive-yards (as well as the old ones) are ploughed three or four times a year, to prevent weeds, thorns, etc., from growing and hindering the full development of the tree. Under favourable conditions, after the third year, fruit can be looked for. Near industrial villages all rubbish from streets and industries is carried to the olive-trees. Pruning is very rare, if ever, so long as the olive-tree is healthy.

Where the trees are neglected, parasitic plants soon invade the stem and the branches; first, the grey lichens (*ḥazâze*[*t*]), so well-known in badly-cultivated olive-yards, and then the mistletoe with the red berries, growing in the olive-yards north of Jerusalem. The worst conditioned olive-yards are still in the neighbouring villages of the plains of Philistia, down the Wady Jesmain, and seem to have continued so since the days when, badly filled with thorns and thistles, Samson let loose the jackals with firebrands and began burning the vineyards and olive-yards before they went out into the plain to burn the wheat and barley (Judges xv, 5).

When the young trees taken from a bad one bear no fruit, they are grafted in March with small cuttings of a good olive-tree (Rom. xi, 17). In the plains the trees blossom in March, and in the mountains about April, and then they look almost as if a slight snow had fallen on them.

The first olives begin to fall in September from the trees, and when they become dry are eaten raw; these *jarjîr* are not generally used for oil. In October riper olives begin to fall and are usually gathered by the women. The gathered fruit is crushed with a stone and put into warm water, and the oil separates from the pulp.

This is called *zeit dak*, or *bikr*, and is the finest oil, provided it is put into clean vessels. No doubt the "pure olive-oil beaten," commanded to be brought for the tabernacle (Exod. xxvii, 30), was such oil, which had not been soiled anywhere, but used directly after its extraction, without passing through the oil-press.

In November the greater quantity of the olives become ripe, and are gathered by men, women, and children. Ladders are put around the tree and the men knock down the fruit with long sticks. This gathering, called *jad* (alluded to in Deut. xxiv, 20), is done by most fellahin, as being more rapid; but the more careful will take the berries, not one by one, but passing the branches through their hands, strip them off by dozens, and let them fall to the ground. This *nakeb* is done to preserve the small twigs, which shall bear fruit the coming year, and which would be damaged by the striking, thus depriving the olive-trees of fruit every second year. In Israelite days the "shaking" was known by the careful observer Isaiah (xxiv, 13).

The berries are gathered by the women and children into baskets, and then into sacks. Whilst gathering one person says a sentence, in a half chanting air, as, "O olives become (as big as) lemons" (يا زيتون اقلب ليمون), the whole chorus repeats this half-a-dozen times, till a new sentence is found, and new emulation for the work is roused.

The olives are carried home and heaped up in a corner of the room, or on the roof in a corner well protected against thieves, to await their turn to be crushed in the oil-mill. The olives ferment and the bitter water flows away, but this proceeding gives a bad taste to the oil (at least for a European throat) which is not at all disliked by the Arabs. When the time has come to press the olives they are brought to the oil-mill.

The oil-mill complete is called *bad*, and belongs to the whole community, or to a part of the village. The work is done by three or four persons, and the horse or mule which turns the stone (*hajar el-bad*) receives a part; that is, the owner of the horse has a share as a worker.

The olives are put on an elevated place, and by baskets-full are crushed under the huge vertical stone, like the stone of a mill, revolving on another stone lying flat and fixed in the ground. The horse turns the stone in a corner of the building, till the olives are wholly crushed, and are poured into round baskets.

A dozen baskets, called a *shudde(t)*, are now carried under the big screw, *lûlab*, which is fixed to another huge beam (*khashabet il-lud*), often 7 to 8 yards long and 1 foot in diameter. The horizontal beam rests on the screw at one end, and a vertical beam at the other end hangs down in the middle of the mill, and is driven by two or three men. The complete press is called *ma'sara(t)*, and the oil when pressed flows into the jar below. The place in the wall where the baskets are piled is called the nest (*'esh*). The owner of the olives receives all the oil of the first press, and the oil-millers have the refuse as their share for all the work furnished. This refuse contains plenty of oil, and will be pressed again at the end of the season, when all the first pressing for the clients is done; meanwhile it is thrown on the floor of the mill, and will be piled over two or three feet high during the four months of the work. The patron saint of the village receives a few pounds of oil for the lighting of his sanctuary, which we know ought always to have a lamp (1 Kings xv, 4); it is a calamity if the oil fails.

(*To be continued.*)

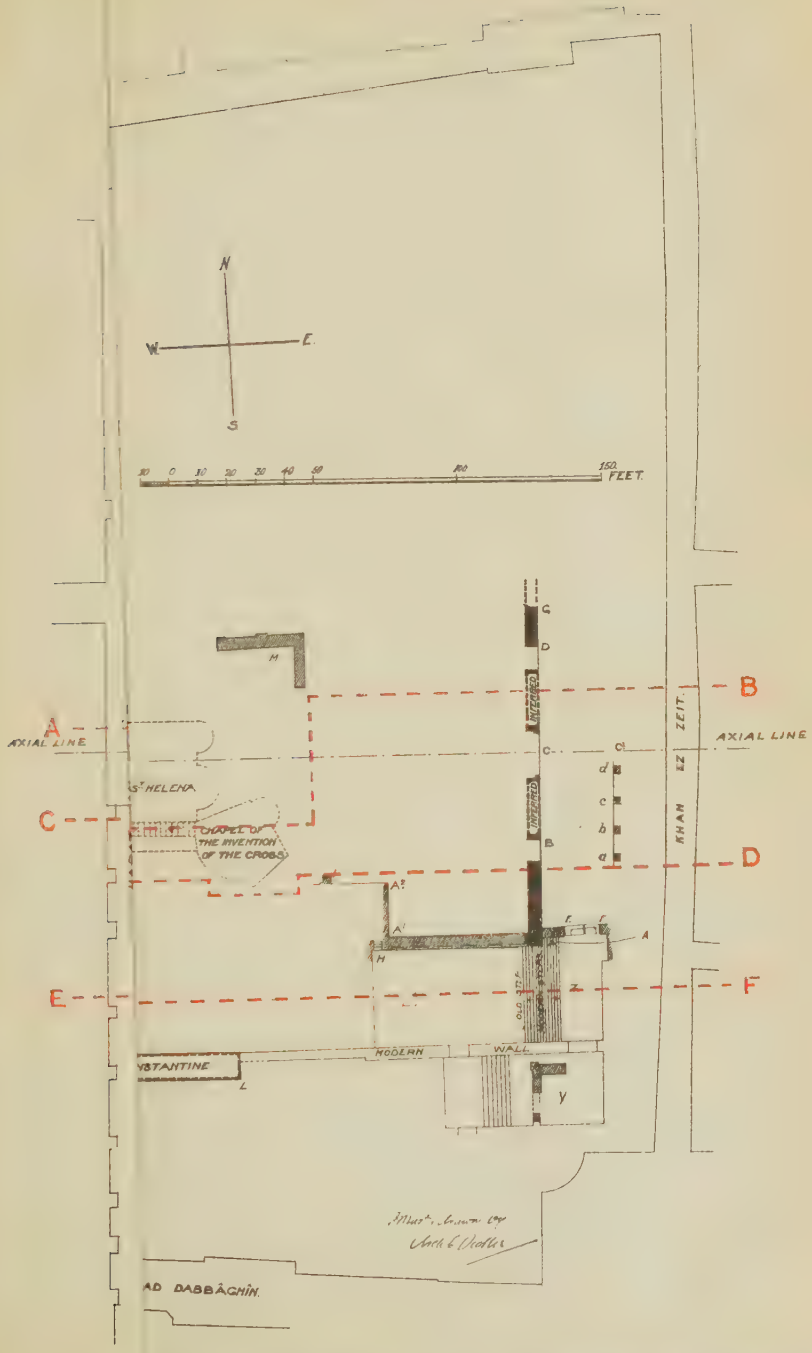
MASONRY REMAINS AROUND THE CHURCH OF THE HOLY SEPULCHRE.

By Archibald C. Dickie, A.R.I.B.A.

The scantiness of pre-Crusading remains in and around The Church of the Holy Sepulchre, and the unavoidably fragmentary nature of the reports referring thereto, make it most difficult to draw them together when attempting any theory of reconstruction of Constantine's group of buildings.

When in Jerusalem, recently, I was able to make a partial survey of these fragments, and to plot them on to the Ordnance Survey plan on the spot. I am much indebted to the Rev. J. E. Hanauer, whose knowledge and guidance made it possible for me to do so, and also to Mr. Spyridonidis for his valuable help.

SEPULCHRE.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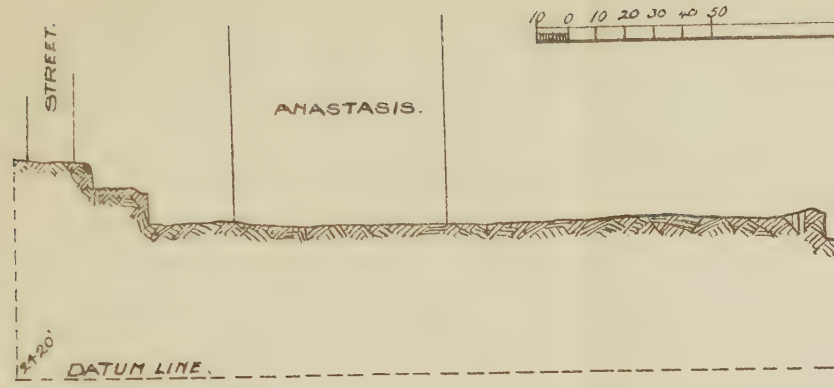
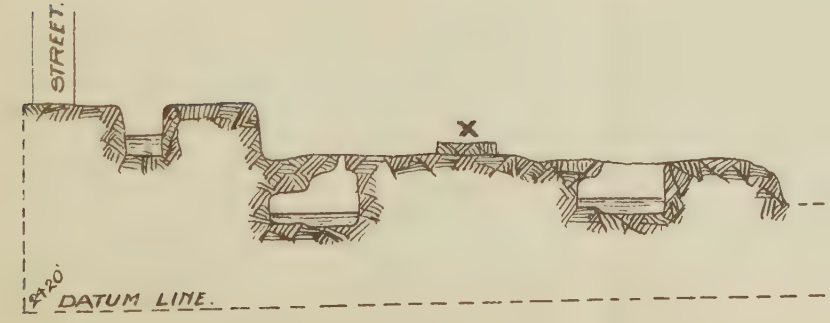




To illustrate more clearly the relationship of these fragments to each other I have plotted them together on Plan No. 1, traced from the Ordnance Survey plan, omitting the existing buildings, so as to prevent confusion, and to admit of more independent study. On this plan there is drawn the block plan of the rotunda, which encloses the Holy Sepulchre—and which is identified as the Anastasis of Constantine — the underground chapels of St. Helena and the Invention of the Cross, the position of Calvary, indicated by a ✠, and certain rock contours taken from Schick's plan, *Quarterly Statement*, July, 1898, p. 148, which bear valuable testimony. The masonry, coloured in black on Plan No. 1, indicates work of an early date, probably that of Constantine, and those fragments which are hatched indicate later or uncertain periods. Plan No. 2 is reproduced from Schick's plan in the same article, to the same scale as Plan No. 1, so as to help identification.

The area so illustrated is bounded by Khôt al Khangah on the north, Harat ad Dabbaghin on the south, Harat en Nasara on the west, and Khan Ez Zeit on the east. As will be seen, these remains are remarkably few, and are individually of no great magnitude, supplying altogether insufficient data upon which to embark upon a reconstruction. It may be valuable, however, to collect them in this way in view of future disclosures which may supply the lost links of connection. I do not intend to attempt any restoration theory, but simply to give a record of investigation up to date, with whatever deductions may be drawn from a study of any particular fragment. These deductions must necessarily be tentative, as the subject is much too complex to admit of conviction.

The largest and most important remains are those within the Russian hospice, marked A, B on plan, and the wall and two doorways reported by Mr. Spyridonidis and Mr. Hanauer, *Quarterly Statement*, October, 1907, marked C, D on plan, which are all part of the same façade.

The east face of the wall A, B stands three courses high, with one stone of a fourth course (Fig. 1). The lowest course is built of random masonry and stands on an irregular rock foundation, which projects from the face of the wall, and rises irregularly to a height of about 4 feet from the pavement level. The stone dressing of this face of the wall is in most cases marginal drafted and comb-picked, and several stones are plain pick dressed. The dressing is so much weathered that it requires the closest scrutiny to find traces of the

comb pick. The dressing is very similar to that on the stones of the Haram area in Hebron, and in some respects similar to the stones in the Jews' wailing place.

The lowest course at the level of line A, Fig. 1, has been hewn away, forming a rude projection of 3 inches. This may have been

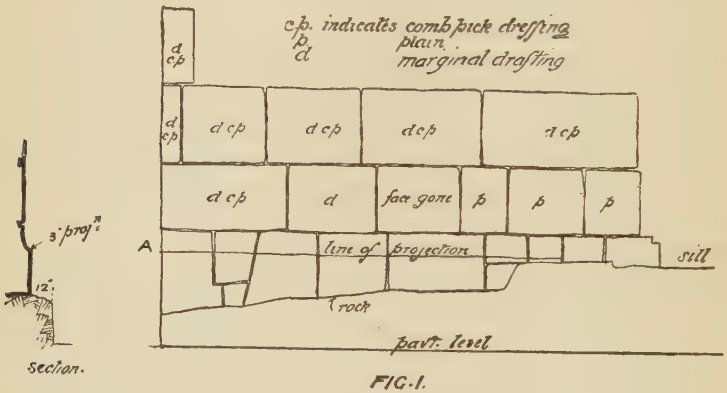


FIG. 1.

hacked out of an existing plinth course which ran at the level of the bed joint above, or it may have been hacked out of a projecting footing course which was originally under the floor level. The nature of the projection—which is hollow in section—does not readily suggest a support for a marble slab facing. The dowel holes in the stones were, in all probability, the holes for the fastenings of a marble slab decoration. The west inside face of this wall is built of smaller stones roughly jointed and bedded, without proper bond, indicating that the wall was intended to be covered, whether with marble or plaster is not clear.

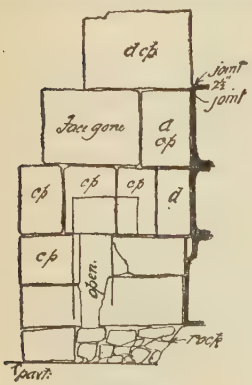
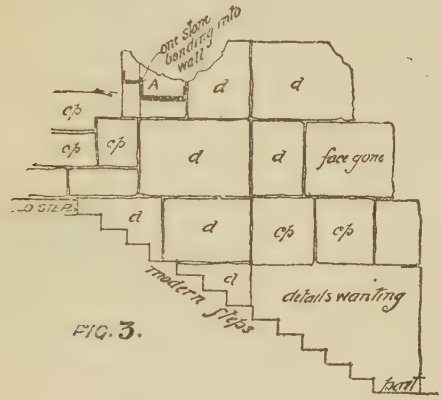


FIG. 2.

Fig. 2 is a diagram of the return north face of the gate pier at E on plan, which stands the same height in six courses of a similar class of masonry to the east face of wall A, B. Part of this pier is built on a footing of rough rubble. There is an opening through the wall in the height of second and third courses.

Over it, and on one side of this opening, there is a counter-sinking which is difficult to account for.

Fig. 3 shows the south face of this pier, against which a flight of thirteen steps abuts, raising the platform on the south to 7 feet 8 inches



above the pavement level. At the top of the steps the stones of the wall are much smaller than those on the right-hand side. This small class of masonry extends from this point to H on plan, and belongs to a later period.

The wall A, H on Plan 1 is not at right angles to wall A, B, but lies at a slightly obtuse angle. It seems, however, to lie in the same line as the original wall, as the bonding of the stone at A, Fig. 3, indicates a similar continuation of the earlier wall. The same peculiarity of line can be seen in the angle of the gate pier. It does not seem probable that this irregularity was intentional, and I think it can be attributed most likely to careless setting out.

At E on Plan 1 there is a door sill formed of two stones in which are sockets and bolt holes. The sill is sunk to give a 3-inch stop to the folding doors, which must have opened southwards. The sockets are 2 feet 7 inches and 2 feet 5 inches from the piers on either side respectively, and on that account it is difficult to imagine how the door could have been made to act effectively without having a dead piece on either side of it. It looks altogether as if this door sill had no relation, as such, to the piers. The piers have no rebates, and the sill appears to belong to a rebated pier opening, much smaller than the present one. The east pier F stands to a height of 2 feet 9 inches from pavement.

It is difficult to come to a definite conclusion as to whether the pier at E is contemporaneous with the wall A, B. This pier is built of similar stones and in a similar manner, but there are irregularities of jointing and position which argue a later addition. On the other hand, when we know that this wall was built from old materials, and that there is evidence of careless setting out elsewhere, it seems justifiable to argue that they are contemporaneous. In view of the uncertainty this pier is indicated by hatched lines.

The sill of doorway at B lies at a level of 4 feet 6 inches from the pavement, and is in three stones 6 inches thick.

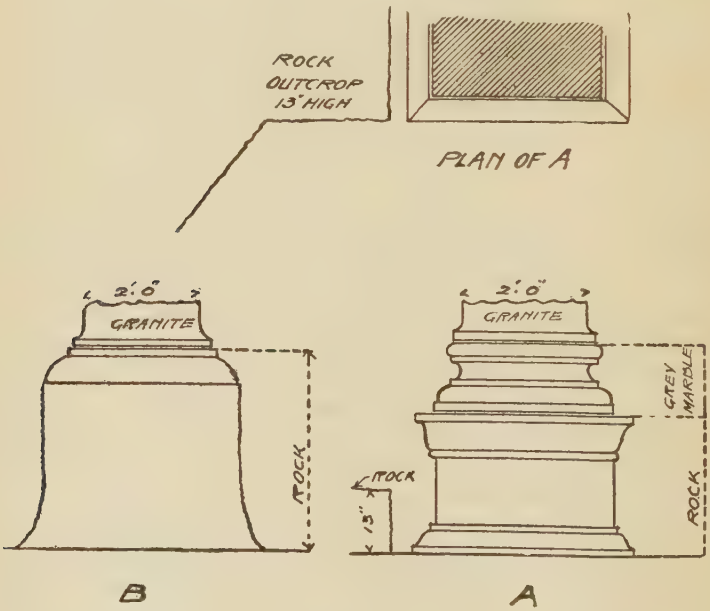


FIG. 4

At Y and Z the pavement is formed of rock, and elsewhere it is made up of old stones (much worn) and of new pavement stones.

It seems clear that the rock has been cut down to its present level, subsequent to the building of the wall A, B, as the irregularities in the footings and the stones of the lower courses prove. A base such as this to a great building is inconceivable. It is also unlikely that there were steps here. Steps, if such existed, would have been placed, in all probability, farther to the east and in front

of the portico, which for the moment we assume is indicated by the columns found at *a*, *b*, and which are in line with those other columns *c*, *d* in the shops of the Khan Ez Zeit. It is not at all certain that there were steps, although the Medeba mosaic indicates lines which might be taken to illustrate steps. Assuming for the sake of argument that they did exist, classic tradition for the grand treatment still remained too strong to suspect Constantine's architect of hiding the great base feature of his façade within a portico. It may with reason be assumed, therefore, that the level of the floor of the portico was somewhere not lower than the level of the rock foundation of wall A, B on plan—see Fig. 1.

The pedestal under column at *b* is rudely cut out of the solid rock and is unfinished; the column itself, of grey granite, sits awkwardly on a base rudely cut out of the solid pedestal (Fig. 4). Pedestal *a* appears to be hewn out of the solid rock. The column base is grey marble, and the column is grey granite. Close to the pedestal there is a curious outcrop of rock, rising 13 inches above the pavement level, see plan of A, Fig. 4, which seems like the remnant of an interrupted levelling down of the rock level.

These columns are built against a wall. The whole work looks an incomplete adaptation of scraps, fashioned in a crude and untutored manner. The want of uniformity and care, the unfinished pedestal and rock outcrop, together with the fact that they are set at a level which everything goes to prove is anterior to the wall, stamps them as later work hurriedly undertaken and never completed.

The wall A, B, Plan 1, has been identified as the second wall of Josephus by various writers, with little or no justification. The theory that it formed part of the eastern façade of Constantine's great enclosure, within which he built the Anastasis and the Martyrion, finds abundant support in the recent discovery reported in *Quarterly Statement*, October, 1907, by the Rev. J. E. Hanauer and Mr. Spyridonidis. This discovery consists of two doorways, C and D, to the north with masonry of a similar character to that just described.

Fig. 5 is a diagram prepared to illustrate the difficulty of associating the column remains with the main structure. The three doorways are drawn to a proportion of two widths to the height (a common Roman proportion), and the column is drawn to ten diameters, with base, cap, and entablature of appropriate proportions. A glance will show how unhappy is the meeting of this order with

the main façade. Apart from questions of detail, such ill-adjusted scale is surely foreign to an age which, although architecturally decadent, still retained some respect for tradition. The Church of the Nativity at Bethlehem is attributed to Constantine, and it stands to-day comparatively pure. Giving due allowance for the fulsome praise of Eusebius for Constantine's works, and the Martyrion

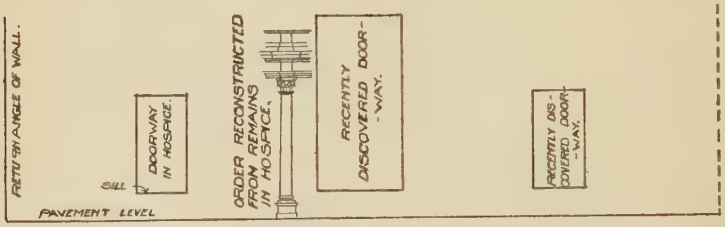


DIAGRAM TO ILLUSTRATE RELATIVE PROPORTION OF ORDER & DOORWAYS. FIG. 5.

in particular, and admitting the extensive use of old materials, one is still entitled to expect work at least comparable with that of the Church of the Nativity. The work here falls very far short of that.[1]

In its arrangement the triple entrance (Fig. 5) is strikingly similar to that in front of the hexagonal court at Baalbeck, and suggests a similar broad treatment in the general handling, although no such

[1] The remains of Constantine's churches at Rome prove a very indifferent building period when old materials were used indiscriminately; miscellaneous fragments occurring in the same entablature, as can be seen at St. Lorenzo. This characteristic does not appear in the Church of the Nativity, and its absence may be accounted for by the scarcity of old materials adaptable to such a building. The capitals are Christian, as can be seen by the carved crosses on the abaci, and are probably the earliest examples of the adaptation of a Roman feature to a purely Christian use. The columns and bases are also in harmony, and fit each other.

This must not be lost sight of in arguments based on architectural detail. The church is accepted as the work of Constantine, and I think it unlikely that these features belong to the later work of Justinian, whose work seems to have been confined chiefly to the transept and sanctuary. They seem rather to indicate the existence of a more creative building art than has been found in Rome, or in Jerusalem where old building material was more easily obtained.

I searched the khans in Jerusalem where old capitals and columns have been invariably used to support the domes, but failed to find any similar evidence of early Christian stone carving.

refinement of detail is expected. It seems as if the original portico—if such existed—has been entirely destroyed, and that the remains of columns which can now be seen belong to a later period.

Fig. 6 shows the west inside face of south jamb of the large central doorway C. It is unnecessary to describe the masonry further than to say that it is of a similar character to that previously described in wall A, B. The floor of the present cellar in which this now stands is at the same level as the sill of doorway B, but I saw no sill and could gather no information as to the level of the rock at this point, except that they had dug down 2 or 3 feet without finding it.

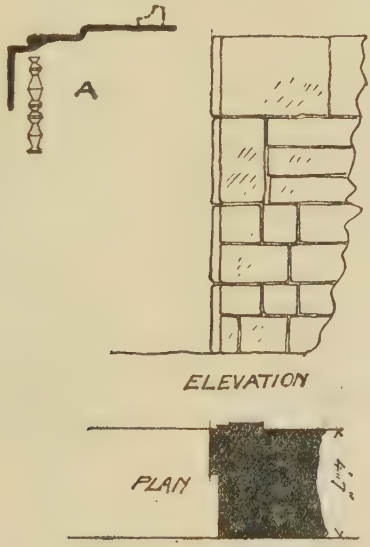


FIG. 6

There seems to be generally a lower level to the rock about this point as at C[1] there was no rock visible at a level of 2 feet below the level of the street Khan Ez Zeit. It was impossible to examine the east outside face of this wall on account of the accumulated débris, but at one point a portion of an architrave jamb moulding is visible, with a rudely cut "bead and reel" enrichment as at A (Fig. 6). Curiously enough the rest of the moulding was hacked away beyond this. Mr. Spyridonidis pointed out the spot where he saw the fragments of the northern doorway D, but as it had been filled up I was unable to investigate.

At G there are two stones exposed on the outside wall of a building showing a continuation of this ancient wall. This portion, which is exposed, extends 4 feet 10 inches in length, and Mr. Spyridonidis saw the intervening fragment.

At H, on the west end of wall A, H, there is an arched opening to a stairway, three steps of which can be seen (Fig. 7). The arch is pointed, but it is possible that it is a later restoration, and that the wall under the arch is contemporaneous with the rest of the wall.

At A^1, A^2 there is a wall standing 11 feet 6 inches high, in six courses, and extending to a length of 17 feet 6 inches with a straight

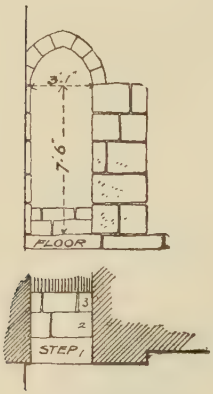


FIG. 7

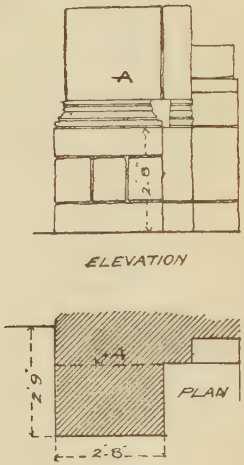


FIG. 8

joint at A^2. Courses vary from 1 foot 6 inches to 2 feet 7 inches high, with comb-pick dressing, and are re-used materials. There is a fragment of inscribed stone, attributed to Hadrian, built into the wall. Dowel holes occur in the stones similar to those in wall A, B. The wall appears to be a patchwork of materials used at a later restoration, but it is impossible to say whether it is contemporaneous with wall A, H.

At I, there is a fragment of a pilaster base, Fig. 8. The base moulding, which is of a debased character, is what might be expected at any time between the fourth and eleventh centuries. On the other hand, the moulding on the top stone of the pedestal below the base moulding has a Crusading character, and this, with the unconstructive

and ill-fitting nature of the building, points to a late restoration of old materials not earlier than Crusading. There are a considerable number of carved and moulded stones lying about in the hall at this point, all of which were unearthed when the excavation for rebuilding was made. They are mostly late Roman and Byzantine. Fig. 9 is a section of an architrave moulding 1 foot 8 inches deep, which, according to Roman proportions, might have

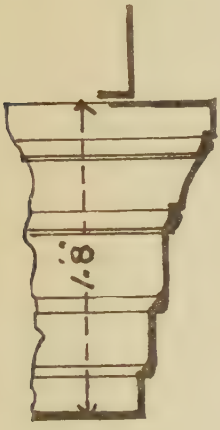


FIG. 9

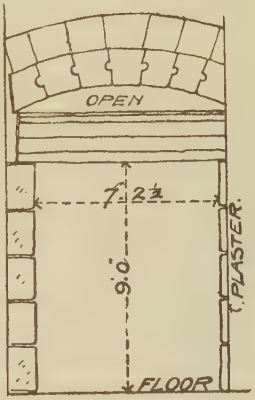


FIG. 10.

been part of an order over a colonnade in which the columns were about 2 feet 3 inches diameter and about 24 feet high. This proportion corresponds generally with the proportion of columns at A, B, C, D, and also with the proportion of the Roman Corinthian capitals found in the Muristan, and now lying in the entrance to the Convent of Abraham. These latter capitals are probably of the time of Hadrian, and may have been re-used by Constantine in the building of the Martyrion, and again re-used in the Muristan after the destruction of Constantine's buildings.

Passing from these fragments, there is a thick wall on the south, marked K, L on plan, in which there is a doorway at J. This doorway sheds valuable light on what has been and is still difficult to account for, viz., the extraordinary thickness of the wall K, L (scales 8 feet 6 inches on Ordnance Survey plan). There are

Crusading windows in the upper part of this wall, and remains of groined vaulting in its north side. The doorway in this wall (Fig. 10) might well be attributed to Constantine. The joggled arch over, looks like a later insertion. The architrave lintel moulding is rudely chiselled, a peculiarity which seems common to his work. It appears as if this great wall existed at the time of Constantine, but it is impossible to say whether it existed previously. In any case it may define the limit of an important building at that time. It seems unaccountable that a wall of such dimensions should have been built either for the purpose of an enclosure wall or as the wall of a church, more especially as the eastern wall of the enclosure A, G is only 4 feet 7 inches, and the assumption that the wall K, L was an existing wall utilized by Constantine is therefore tenable. It is also reasonable, on the other hand, to suggest that this wall was thickened from the inside to resist the thrust of the Crusading groined vaulting. This theory is strengthened by the evidence of the walls of the Church over Jacob's Well which, according to Mr. Spyridonidis, are 8 feet thick. This latter church was built by the Crusaders, who ignored the use of the buttress either from a disregard of material or from a pointed objection to the architectural effect of the buttress. For the needs of the present subject, however, further discussion on this point is unnecessary. It is sufficient that we have here a wall of an early building in which there is a doorway bearing characteristics attributed to the work of Constantine.

An axial line drawn parallel with this wall cuts through the centre of the rotunda and the centre of the east doorway C. The line of wall K, L is extended westward from K by a dotted line on plan to further emphasise this fact, which is sufficiently important to be seriously reckoned with. The continuation of a modern wall eastwards from L is a suggestive preservation of the line, and, moreover, this line is exactly at right angles to the wall A, G. For want of any evidence to the contrary, I am inclined, tentatively, to accept this line as the southern boundary of Constantine's enclosure.

The L-shaped piece of wall at M is shown in the lower course of an existing wall built of rough natural-faced stones. N is a pier with a part of a Byzantine arch incorporated in the outside wall of a chamber behind the church.

Pier O is also a late pier, probably Crusading, *see* Fig. 11, and is part of a colonnade of re-used materials indicated by columns P, P, P, P.

The two columns Q, Q in the same line to the west are built into the walls of the buildings attached to the church, the northern one being in the refectory, west of the Chapel of the Apparition. These are late Byzantine in character, *see* Fig. 12. It is interesting to note that these columns P, Q are in line with the Crusading doorway now built up, entering from the Harat en Nasara, marked R.

The piers marked with an S are built of early masonry in character with the earliest work described, and have been cased with masonry which seems to be Turkish.

On account of the accumulation of débris I was unable to find the base level of the piers S and O and the columns P, but they are at a lower level than the columns Q, Q.

The rock scarps T, U, V around the Anastasis are those described by Schick, *Quarterly Statement*, July 1898. The scarp T on the south-

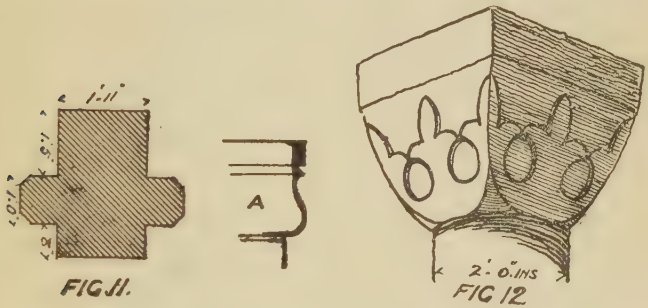


FIG 11. FIG 12

west stands in places to a height of 17 feet above the floor level of the Anastasis, and lies in an awkward position, cutting into the building at a higher level than the other part of the passage between the outer rings. Here also it seems that we are confronted with an incomplete levelling of the great platform; one would naturally expect it to extend westwards in line with scarp U, returning eastwards as at scarp V. At W I found a rock pavement in the passage behind the Chapel of the Apparition at a level of about 3 feet 9 inches above the level of the floor of the Anastasis. At X there is a 12-inch high rock step forming the altar step to the Chapel of St. John.

The section on lines A B, C D, and E F, taken from Schick's drawings, will show these irregularities.

In conclusion it may be said that although the remains of Constantine's great work are remarkably few and indefinite, there

is little doubt that the eastern wall and three doorways, A, B, C, D, G, belong to that period, and are probably the remains of the enclosure within which the churches stood. In face of the present evidence, there is reason to accept the wall and doorway K, J, L, as part of the southern boundary, while the various other fragments become to a great extent weeded out of consideration.

The most important of these fragments which become relegated to a later date are the columns and bases *a*, *b*, *c*, *d* on the east, which associate so awkwardly with the wall A, B, C, D, G as to make their adaptation impossible. The rock level between these columns and the wall is undoubtedly later than Constantine, and the existence of a large flight of steps, either here or in front of the columns, is still uncertain. In fact, everything goes to prove that no such feature existed.

The arrangement of placing the churches within an enclosure is all the more interesting as it reflects the plan of the Temple area, and the Temple enclosure at Damascus (see *Quarterly Statement*, October, 1897, p. 268), which was converted into a Christian church by Theodosius (379 A.D.).

TALES OF THE PROPHETS.[1]

Translated by R. A. S. Macalister, M.A., F.S.A.

Of Abraham.

Our lord the Friend (on him be peace!) while he was a boy used to take the images which his father Âzar made, to sell them. Now his father used to make images and give them to Abraham, and he went with them to sell them. He used to drag them behind him with a rope tied to their feet, and cry them in these words: "Who will buy a thing that will hurt him and do him no profit?" And the people heard him and watched him dragging those images,

[1] The following is a further instalment of the series collected by Yusif for the Fund. I have added a few notes, but the greater part of the tales speak for themselves.

but did not dare to say anything about it, for fear of Âzar his father.

Now when Abraham attained the age of seventeen years, and mixed with men, and was received to the feast of his countrymen, the people said to Abraham: "Go with us to the prayer at the feast of our god." Now their god was an image of stone, and it had a house of white and green marble, and in that house were seventy-three images, seated on thrones of gold. And the people all went out into the wilderness for their feast, except Abraham, who did not go out with them, and said to them that he was sick. And when Abraham was left behind, he took a pickaxe and broke all those images except the great one, and that he did not break, but hung the pickaxe on its neck, and went away. And when the multitude came back to the images they found them broken, and the pickaxe hung on the neck of the great one. And they said: "Who has done this to our gods?" And some of them said: "We have heard a youth who is called Abraham speak against them." And the sultan of that country said to them (now he was a man of great violence, by name Nimrod, and Abraham was abhorrent to him, because he had heard from the priests that "a boy had been born by name Abraham, and thy death will be at his hands"): "Bring him to me before all the people, that they may bear witness." And they went and fetched Abraham. And when Abraham stood before Nimrod, he asked of him, saying: "Didst thou do this thing to our gods?" And he answered saying: "Nay, but the great one among them did it: ask them, if they have a voice." Then were the king and the multitude enraged against him, and the king and the priests commanded that Abraham should be burnt, and their gods vindicated. And they collected an immense quantity of firewood, and piled it in a heap: and the fire spread till it burnt the crowd. And they consulted how they should put Abraham in it, since because of its heat no one could go near it.

Now Iblis the Accursed came in the form of a man, and said to them: "I will prepare for you a mangonel, and ye shall shoot Abraham into the fire with it, yourselves being far away from the fire." And they agreed to his words: and he prepared a mangonel for them, and they set about casting Abraham into the fire. And there arose an outcry of the angels of the heavens and of the earth, and they said: "Our God, our God and our Lord! Thy servant

Abraham—none serveth Thee like him upon the earth, and how shall these infidels cast him into the fire?" And Allah commanded them saying: "O ye My angels, when I ask rain of you, then pour rain." And Michael went to him and said: "O, Abraham, if thou wilt, all the rains will pour and quench the fire for thee, and all the angels will come and put it out ——" and he did not finish his speech to Abraham when Allah (be He exalted!) called to Gabriel; now he is one of the angels that stand near to Allah, and it is he who descended on all the prophets and filled them with wisdom and freedom from sin. And Allah (be He blessed and exalted!) said to him: "O Gabriel, beat with thy wings upon the fire." And he beat with his wings upon it and put it out with the wind. And Allah made coolness and ease for Abraham, and made a fountain of water to run beside him, and by it was a pomegranate tree: and Gabriel brought him a bed from Paradise, with a coverlet of fine silk, and a crown, and Abraham put it on and seated himself: and no hurt came to Abraham (Allah's peace be on him!).

Now Nimrod was sitting on a lofty place when they cast Abraham into the fire, and he wished to watch what happened to Abraham. And lo! a spark flew from the fire and burnt all Nimrod's clothing, but not his body; which was not burnt in order that he might learn that fire burns nothing save by the permission of Allah (be He exalted!). And when Nimrod saw that, he said to Abraham: "Depart from our land, else thou wilt corrupt our religion." And Abraham departed, and Sarah, Abraham's wife, and his brother's son, Lot (on whom be peace!) and all that believed in him. At that time Abraham was not married to Sarah, who was yet a virgin.

The dervîshes in their religious ecstasies believe that fire will not burn them, on account of what happened to Abraham the Friend, when he was in the land of Nimrod.

[A version of the foregoing story, differing in some details, will be found in Mr. Hanauer's recently published *Folklore of the Holy Land*, p. 25. It is not difficult to recognise in it a distortion of the tales of Bel and the Dragon, and of the Three Holy Children, in the Greek Book of Daniel.—R.A.S.M.]

Of Isaac.

Between Isaac and Ishmael there were about thirty [*sic.*] years; now he was son of our lord Abraham (on him be peace, and upon

them!). Now Isaac was highly inspired, an apostle-prophet; and when he grew up he married a wife, and when he went in to her, his wife conceived two twin sons, one of them Esau, the other Jacob. Now it is said that Esau spoke while yet unborn, and his mother heard it and told her husband, Isaac. And he said to her: "If thou hearest it a second time, tell me." And when she heard it the second time she told him. And Isaac drew near and put his ear close to listen, and he heard Esau saying to Jacob: "By Allah! if thou art born first, I shall slay thee by slaying our mother." And Isaac forbade him. Now at the time of birth, Esau was first, and Jacob after him. Hence was Esau ('Aisa) called "the quarrelsome" ('aṣi) because he overcame Jacob, who, by rights, was the elder: and Jacob was so called (Ya'ḳûb) because he was late ('aḳb) in birth. And when Isaac died they buried him with his father in the city of The Friend of the Compassionate One, which is called after the name of his father. And people say that his spear is washed every Friday, and blood is found thereon.

[Evidently a reminiscence of Gen. xxv, 22, 26. I have not ventured on a literal translation of this tale: the above paraphrase, however, contains everything essential. The washing of the spear is connected with the idea that Isaac goes out and has a battue of infidels every Friday.—R.A.S.M.]

Of Sâliḥ.

The prophet Sâliḥ was a pious man, and an apostle-prophet, according to their[1] religion. And he went one day on to a mound to direct them how to worship Allah. And they opposed him and obeyed him not: and they said to him: "We will not believe in thee till there come out to us from this rock a coloured she-camel with her young one before her, with milk tasting like honey and intoxicating like wine; and till there be cold in summer and heat in winter." And Sâliḥ arose to pray, and made petition to Allah (be He exalted!): and he raised his hands and stretched them forth to Allah, Creator of heaven and earth. Then he went to the rock and struck on it with his rod; and the rock was split and groaned as one groaneth in travail; then there came out from the rock a she-camel of the sort they had asked, with her young one before

[1] *I.e.*—of the fellaḥin.

her; and she cried out: "There is no God but Allah; Sâliḥ is the prophet of Allah." And the king and all that were with him believed.

And after that there were two men who loved a woman, and they met at her house, and said to her: "Bring us water." And she sought among her neighbours and in the whole town and found no water. And she said: "The she-camel of Sâhiḥ has drunk the water." And she returned and told the men. And they said: "We shall certainly slaughter her." And they laid wait for her and slaughtered her. Then they sought her young one, and it ran to the place whence it had come out, that is, the rock.

Now, after they had slaughtered the she-camel, the news was spread abroad, and they came to the camel and began to cut pieces from her flesh and send them to every house in the town, till there was not a house whereinto none of the she-camel's flesh was brought. And they began to eat of her flesh and to mock. And when Sâliḥ came they told him of the slaughter of the she-camel: and Sâliḥ said to them: "Depart, and if ye find her young one perhaps punishment will be averted from you." And they went to seek it, and found that it had hidden itself in the rock. And they came and told Sâliḥ. And Sâliḥ said: "There is no might nor power but with Allah the Exalted, the Omnipotent." Then he said to them: "After three days a mighty punishment will come upon you. And as a sign thereof, the first day your faces will become red, and the second day they will become yellow, and the third day they will become black." And when he said thus, they wished to kill Sâliḥ: and he fled from them, and hid himself in the house of one of their great ones. And the multitude came to the house and said to the owner: "Sâliḥ has entered and is hidden with thee." And he said: "Yea, he is with me: but I shall not deliver him to you, for I believe in him."

Then Allah (be He exalted!) commanded him, saying to Sâliḥ: "Depart from this people, thou and all that believe in thee, and go to the land of Syria." And Sâliḥ went out from that city, he and all that followed him: and after that there descended upon them punishment, namely, torments from heaven, and their hearts were torn from their breasts, and they died, all of them. But Sâliḥ, after he left that city, was grieved for his she-camel, and the angel Gabriel descended and said to him: "If Allah will, thou shalt have thy camel on the Day of Resurrection."

And now there is a proverb; when one desires a thing that is impossible, the others say: "That thing will not fall out till Sâliḥ gets his camel."

[A very remarkable story: it is referred to, but in an entirely different version, in the Korân, Sûra VII. Reminiscences of Lot and Sodom are obvious; but does the incident of the division of the sacred camel look back to totemistic communal feasts? The stock folk-lore motive of the Impossible Task is also to be recognised.—R.A.S.M.]

Of Job.

The prophet Job was a pious man whose devotion excelled that of all others: and Iblis the Accursed had it in envy. Now in those days Iblis was not yet prohibited from ascending to heaven; and he was talking with the angels, who spoke in praise of Job for the greatness of his devotion and goodness and hospitality. And Iblis the Accursed said: "Were Job a poor man he would not worship Allah (be He exalted!): and if Allah were to give me authority over his property, he would abandon his devotion." And Allah answered Iblis the Accursed before them all: "I give thee authority over it." And Iblis the Accursed assembled his companies, and sent them into the fields and pastures of Job; and Job knew nothing of it. And great fire burst forth from under the ground and burnt all his crops, and leaped upon his cattle and burnt them also. Then Iblis came to Job. Now it was the time of prayer, and Job was engaged in prayer before his *miḥrâb*. And Iblis the Accursed said to him: "He to whom thou prayest has just burnt all thy crops and thy people and thy cattle, and I have come to tell thee." And Job said: "Praise be to Allah who gave to me and hath taken from me." And Iblis returned frustrated. Then Iblis mounted to heaven, and spoke with the angels, and the angels said to him: "How hast thou found the patience of Job?" And he answered: "Very steadfast is he to his Lord: but were Allah to give me authority over his children he would have no more patience." And Allah made revelation to him, saying: "I have given thee authority over them." And Iblis sent and shook the house over the children and his family, and the house fell upon them and destroyed them all. And Iblis the Accursed came to Job (who was standing in prayer before his *miḥrâb*) in the form of their mistress; and Job said to her: "What

is the news?" And she said: "The house has fallen on thy children and destroyed them all." And Job said: "Praise be to Allah, who gave to me and hath taken from me." Then Iblis departed from him for a space and returned in the form of their servant, and said to him: "Wert thou to see thy children now!—their blood pouring out and their bodies burst—;" and he did not cease speaking thus, as though consolingly to him, till he smote on the heart of Job; and Job wept and said: "O that I had not survived!" And Iblis the Accursed wondered at those words. Then he went up to heaven, and sat with the angels, and the angels asked him: "How hast thou left Job?" and he said: "He is steadfast to his Lord, but were Allah to give me authority over his body he would have no more patience." And Allah made revelation to him, saying: "I have given thee authority over Job." And he went to Job, who was standing in prayer. And he came near and blew in his nostrils: and his brain and forehead were inflamed thereby. And Job scratched his body on a stone till he cut his flesh, and his nails fell off, and his flesh wasted away and his bones protruded, and his whole body was full of worms. Then all that remained of his family deserted him, save his wife Raḥmah. And Iblis the Accursed came to the people of that village which was near to them and wherein they dwelt, and said to them: "Drive out Job from your village lest he infect you in your bodies." And the people of the village arose and said to his wife: "Take out Job from amongst us, else we will kill him." And she carried him on her shoulders, and went with him to a ruin that was there, and she made a bed under the earth and rested beside him. And Job slept on the ground, with the worms feeding upon his body, for seven years. And when the worms reached his tongue, Job was in great straits, and he said: "O Lord, evil has come upon me, but Thou art the most merciful." And Allah heard his prayer, and commanded Gabriel to go with a pomegranate from Paradise. And the angel Gabriel came and offered it to Job, and gave it to him; and when Job ate it and it descended into his belly, there went from him all the evil that was therein. And the angel Gabriel said to him: "Strike the ground with thy right foot." And he struck the ground as the angel commanded, and there sprang up a well of cold and a well of hot water. And Gabriel said to him: "Wash in the hot, and drink of the cold." And when he did so, his flesh returned unto him like silver. But Iblis the Accursed went away from Job

abashed. And because he was patient under all these afflictions he is called "Job the Patient."

[This truly prosaic paraphrase of the greatest of poems will also be found, with many variations, in Mr. Hanauer's book above quoted, p. 17.—R.A.S.M.]

(*To be concluded.*)

A JERUSALEM CHRISTIAN TREATISE ON ASTRONOMY.

(*Continued from Q.S., p.* 258.)

By Miss Gladys Dickson, Jerusalem.

Of the Matters concerning the Birth of the Year and how the Rains will be in it. [28]

If the year be born on *Saturday* eve it indicates goodness of crops, much wind, abundance of olive oil and vetches,[1] the outbreak of dissensions in Africa and among the Arabs. The winds will be in March, April, and May, the summer will be hot; in the end of the year there will be mortality. If it be on *Sunday* eve the rains will be mixed with snows and the rivers will overflow, winds will be excessive, the crops good; there will be fighting in the Western countries and mortality among the aged. Prices will reduce; there will be shortage among cattle. It will be dry in March, and among some people there will be various diseases. If it be on *Monday* eve it indicates great rains and contentions and shedding of blood; the harvest will be advanced, and the west winds will blow strong in February and March. There will be sickness among cattle; the crops and the vetches and the wine and the oil will be good. There will be sudden mortality, and fever will increase. If it be on *Tuesday* eve it indicates outbreak of smallpox and occurrence of wars and increase of snow in Syria and a dry spring. The rivers will overflow and the simoom wind will increase. The fruit will fall. Disease will befall women with child. The dearness of prices will be reduced in [29] the end of the year. From October to January will be dry. There will be shortage of honey and fruit; *samn* will be dear. Avoid riding horses. If it be on *Wednesday* eve it is harmful for corn and barley and vineyards. Fruit will increase. The rain will be excessive, the cold little, and Palestine and Jerusalem and Egypt will be fruitful. Corn and olive

[1] *I.e.*, peas, beans, lentils, etc. (pulse).

oil will be cheap. In February there will be violent wind and thunder and lightning. March and April will be moist, and rebellious countries will fortify themselves. If it be on *Thursday* eve it indicates goodness of plants, and grapes and figs and fruit. There will be pains of the side. Some women will die. The year will be good, and great ones of the people will die. It will be bad for merchants. There will be shortage among cattle. At the beginning of the winter there will be warmth, as well as at the end of it. There will be plague among camels. The rains will increase and wars will be violent. People will have pains in the back. There will be winds in October and November. The *samn* and fruit will be good and the condition of people improved. If it be on *Friday* eve it indicates shortage of rain and goodness of pasture. There [30] will be mortality among infants. Winds will blow all over the earth. The rivers and springs will overflow. There will be wars in the islands and shortage in the crops. God (the praised and exalted) causeth changes, and changeth not!

On the Beginning of the Year with the First of January.

If it commence on *Sunday* it indicates excess of rains and the pasture plentiful, the winds strong, vetches plentiful, olive oil and wine short. Dissensions break out in some places. Troubles increase. The crops will be moderate, and the summer will be exceedingly hot, with pernicious fever and death. If it commence on *Monday* there will be disturbance among kings, and excessive cold and great winds, and snows in January and February. Wine and olive oil will increase, the crops will be good, the rains will be in October and November. If it commence on *Tuesday* it indicates excessive rains, outbreaks of smallpox. Cold will increase, [31] there will be shortage in crops and fruit and olives. Prices will be dear, and October and November will be dry. If it commence on *Wednesday* heat will affect the crops, and the vineyards and fruit will be plentiful. The Holy Land will be fertile. In February there will be cold and hail, and the corn and olive oil will be cheap, and perhaps there will be earthquakes in the end of February and moisture in April. The state of crops will be good, sesame will be scarce, the summer crops will be good. There will be disturbance and wars. If it commence on *Thursday* the year will be sound in its crops and the rains moderate. The grapes and figs and olives will be plentiful. A man of exalted station will die. There will be shortage in honey. Sheep will increase. In October and November there will be strong winds. The condition of people with regard to the necessaries of life will be good. If it commence with *Friday* the year will be blessed, the rains little, the spring moist. The fruit will be good and in the highlands winds will prevail. The rains will be little, and there will be shortage in barley and horses and camels. If it commence with *Saturday* it indicates shortage of olive oil and wine

and cheapness of barley, the corn will be scarce and vetches good, and with that there will be cheapness. In January terrible cold, and snow [32] and clouds and thunder in February and March and April. Charcoal and firewood will be dear and corn cheap. (God knows best!)

What is said on Eclipses of the Sun in the Months of the Eastern Computation.

If the eclipse be in *April* it indicates wars and discords; if it be in the region of the east the contentions will be in Persia, and dearness in the east; if it be in the region of the west, there will be dearness and mortality in Greece. In *May* it indicates sickness and violent contention and journeys. If it be from the first to the middle it indicates commotion in all lands; if thence to the end, adversity. In *June* it indicates mortality among cattle and increase of hostility, and dearness and mortality in Armenia and Roumelia and Syria. In *July* it indicates mortality in Africa and wars in India and dissensions on the plains. Ships will sink in the sea and the soldiers of the Greeks will be mobilised. In *August* it indicates scarcity of rains and increase of robbers and corruption. In *September* it indicates oppression in every place and [33] appearance of locusts. Corruption will increase, and rain will be diminished at the beginning of the year and increased at its end. Contentions will increase among people. In *October* it indicates excess of rains and cold, and wars will become violent. There will be plague among horses and goats. In *November*, if there occur an eclipse of the sun, it indicates disease in the end of the year, and cold and snow; thieves will increase. In *December* it indicates increase of rains and snows and fertility of crops and peace among people. The cattle will perish and there will be high prices in 'Irak and the Holy Land. In *January* it indicates great prosperity and increase of rains and fruits, and there will be mortality in the universe, and some sickness among people. Contentions will increase, and perfidy among people. In *February* it indicates wars, and death of sheep and plentifulness of olives. Rains will increase, and the melons and the olive oil will rot. In *March* it indicates goodness [34] of the year, excessive rains. Some of the crops will rot and the oil will be scanty. Troubles will increase. There will be contentions and afflictions. The year will be a peaceful one. (God knows best!)

What is said on Eclipses of the Moon in the Months of the Eastern Computation.

In *April* an eclipse of the moon indicates snows and strong winds. Corruption and contentions will increase in the land, and lying will prosper among people. In *May* it indicates journeys and sickness among

people, mortality of cattle, corruption of vetches, overflowing of springs. The year will be plentiful with its produce. In *June* it indicates peace for the poor and trouble for the great, and famine in the west, and justice appears. Fruit is good. In *July* it indicates dearness and immoral conduct in the world; plentiful rains. In autumn diseases will increase and there will be shortage of crops. In *August* it indicates much [35] blood[shed]; there will be shortage of crops and a king will die (God knows best!). In *September* an eclipse of the moon indicates plentiful rains and the rivers will expand, and there will be various pains among infants in autumn. In *October* it indicates security in the year and fertility of the earth, and plentiful rains. There will be sudden mortality and thunderbolts and thunder, and some of the grain will rot. In *November* it indicates terrible calamities and cold and much frost. Famine in the plains. Locusts will appear. (God knows best!) In *December* it indicates plentifulness of rain and snow, and terrible cold. The olives will be good with the fruit, and there will be panic on account of the Arabs. In *January* it indicates cheapness in the year and justice; the cattle will be good and the affairs of merchants prosperous. There will be plague in Syria. In *February* it indicates plentiful rains and overflowing of the rivers; winds and earthquakes, and in summer great heat. (God knows best!) In *March* an eclipse of the moon indicates terrible [36] cold and snows. The year will be good in crops and wine and olive oil. There will be contentions between kings, and the word of quarrels and . . . .[1] will arise. (God knows best!)

What is said about Solar Halos in the Months of the Eastern Computation.

In *April* a solar halo indicates wars of kings; there will follow shortage in the crops. In *May* it indicates increase of robbers; the year will be blessed in plentiful produce. In *June* it indicates mourning in certain cities and villages. Robbers will increase; crops will prosper. In *July* it indicates terrible rains in October and November, and plague in Yaman. In *August* it indicates contentions among kings and dissensions of the Arabs. In *September* it indicates adversity among people and dearness of prices. In *October* it indicates great contentions and hostility among people. In *November* a halo round the sun indicates greatness of rain and security in travel, and goodness of crops. In *December* it indicates greatness of rain and mortality among cattle. [37] Barley will be dear and wars will increase. In *January* it indicates goodness of crops, and there will be pains of the eyes. There will be turmoil and contention among people, and their great men will die. In *February* it indicates excess of snows and olive oil will be dear and the fruit short. In *March* it indicates outbreak of contentions among people,

[1] Illegible word.

and for them adversity will end in consolation. The rains and snows and wind and cold will increase, and some of the crops will rot. (God knows best !)

What is said about Lunar Halves in the Months of the Eastern Computation.

In *April* a halo round the moon indicates outbreak of wars and [38]
greatness of winds and earthquakes and goodness of crops. In *May* it indicates plenty of crops and goodness of vetches. Diseases will increase among people, and wars will be in the mountains. In *June* it indicates plenty of grain and birds and fish, and perhaps mortality will befall people from lightnings. There will be shortage among cattle. In *July* it indicates good and peace ; from the excessive heat some of the fruits will be destroyed. In *August* it indicates dissensions among the people and scarcity of rains. Aridity will increase, and ophthalmia. In *September* it indicates dearness, and the fruit of the year will increase and the rivers expand from the excessive rains, and the corn will prosper, and the plenty will increase and the state of people will be good. In *October* it indicates advance of the rains and cheapness in the year and
cold and snows and strong winds. In *November* it indicates contentions [39]
and strength of winds and rains. In *December* a lunar halo indicates excess of disease and mortality. Worms will increase (God knows best !). The fruit of summer and fertility will increase. In *January* it indicates much rain in February, and snows and overflowing of waters. The fruit will be destroyed : fertility will be good. In *February* it indicates dearness, goodness of fruit. There will be frost ; olive oil will be dear ; the vineyards will rot. In *March* it indicates excessive cold and outbreak of wars and goodness of fruit. (God knows best !)

What is said about Earthquakes in the Months of the Eastern Computation.

In *April* it indicates great rains and strong wars and cheapness and goodness of the year. If it be by night, it indicates bloodshed. In *May* it indicates dissensions and greatness of contentions and wars. If it be by night, it indicates cheapness and peace among people. In *June* it indicates plague among animals and sore throat in Palestine. There will [40]
be cheapness in that year. If it be by night it indicates the reverse of that, and perhaps there will be mortality in the highlands. In *July* it indicates dearness, and some places will be trodden under foot by strangers. In *August* it indicates advance of rains and increase of robbers. In *September* it indicates the death of a man of high position, and advancement of the year in bounty. If it be by night wars and

sickness will increase. In *October* it indicates increase of rain, cheapness, and diseases. In *November* it indicates contentions and tyranny. If it be by night it indicates fertility and a good condition. In *December* it indicates increase of diseases. If it be by night it indicates mortality among cattle and gossiping among people. In *January* it indicates greatness of heat and plague and famine, and pestilence of cattle. If it be by night it indicates increase of robbers, and a sign from heaven will appear. In *February* it indicates greatness of rains and contentions and strange diseases. In *March* it indicates that the spring will be good and the year prosperous. If it be by night it indicates increase of grain and goodness of the plants.

The Indications of the Rainbow. [41]

In *April*, if it extend from east to south there will be excitements and diseases and contentions in the land. If it be from west to north it indicates violence of wars and goodness of crops and fruit. In *May* if it be from east to south mortality among cattle and women will increase; if it be from west to north it indicates high prices. In *June*, from east to south, diseases increase, some countries will be destroyed, and the land will be fertile. If it be from west to north it indicates contentions and wars. In *July*, from east to south, corruption increases. If it be from west to north wars become violent and animals die. In *August*, from east to south, febrile diseases increase; from west to north, wars and high prices increase. In *September*, from east to south, it indicates advance of the rains and goodness of the year.[1] In *October*, if the bow extend from [42] east to south, it indicates contentions; if from west to north, it indicates greatness of rains; the crops will be good, and the summer crops will be plenteous, and there will be peace. In *November*, from east to south, the cattle will be destroyed and the year plentiful. From west to north, disease will break out in Syria, there will be shortage among animals, the honey and the wine will be good. There will be mortality. In *December*, if from east to south, it indicates violent wars, and cheapness in the whole earth. From west to north it indicates prosperity and plentifulness of crops. In *January*, if from east to north, it indicates goodness of the year and its crops; if from west to south it indicates famine in Syria and excessive cold. In *February*, if from east to south, it indicates prosperity (?)[2] of people; there will be heat and adversities. If from west to north it indicates great mortality and cheapness of prices. In *March*, if from east to south, it indicates rains and fertility. (God knows best!)

[1] The turn of the page has caused the writer to forget the west-to-north prognostication of these months.

[2] A word here not legibly written.

What is Said about Terrifying Stars [*Comets, &c.*]. [43]

In *April*, if one appears, it indicates contentions between kings, and attacks. In *May* it indicates mortality and goodness of crops, and dearness prevails In *June* it indicates weakness and disease among the aged. In *July* it will be a year full of heat and plague among goats. In *August* thieves increase and prices will be great. In *September* it indicates cheapness and advance of rain. In *October* it indicates fertility of the corn and peace between kings. In *November* contentions will break out between kings, and pestilence will appear. In *December* corruption will increase in Syria and the East. In *January* it indicates fertility of the year and oppression will increase. [*February* omitted.] In *March* if a sign from heaven appear, be it a pillar of fire or a comet, there will be good in that year, heat will affect the crops. There will be many earthquakes and eclipses, and the rivers will be low, and there will be dissensions among beings. (God knows best !)

The Twelve Signs. [44]

The first sign—*Ḥamal ;* fiery ; the sun ascendant, *Zuḥal* descendant. It has three aspects. One born in the first aspect (of *Mirîḫ*) will be self-controlled, with many enemies, much trouble, unlucky in his friends. If he be born in the second aspect (of the sun) he will have blue-black eyes, black hair, and he will be rich, then he will become poor, then God will compensate him with property acquired by his work. If he be born in the third aspect (of *Zuhrah*) he will have luck in leadership, and after twenty-six years he will pass from poverty to riches, and he will get what he desires and will be distinguished among his people. He will be close-fisted, and friendly to women. The learned says, that one whose is this sign will journey in the East ; his [lucky] season is Spring, and his lucky days Tuesday and Friday. He should join partnership and marry with one whose star is *Asad*, *Ḥamal*, and *Ḳaws*, and he should avoid one whose star is *Saraṭân*, and *'Aḳrab* and *Ḥût*. His luck is in cattle, and building, and vineyards : he should avoid riding horses. And pains in [45] the head and the spleen will affect him. There will be a mark in his arm. He will be in danger of falling from a high place. The habitation of his property is *Ḥamal :* he will gather property, and honour, and blessing. The habitation of his brethren is *Thawr :* he will have many brethren and only a few of them will survive. The habitation of his father is *Jawza :* he will bury his mother before his father. The habitation of his children is *Saraṭân :* his descendants will have few males and no females. The habitation of his diseases is *Asad :* at the beginning of his life he will be ill. Let him avoid drinking water. The habitation of his female relatives is *Sunbulah :* he will get luck from

them, let him look out for misconduct. The habitation of his death is *Mîzân:* let him shun the plains. The habitation of his honour is *'Aḳrab:* he will be honoured by lords, and beloved. The habitation of his property is *Jadi:* he will attain great prosperity. The habitation of his journeys is *Dali:* he will be a great traveller. Oil of violets is good for his headaches. The habitation of his enemies is *Saraṭân* and the moon: he will have many enemies, with no power over him. He will always love to do good among people. When he sleeps let him turn his head to the East. When he sees the new moon he ought to have a male person [46
before his face. When he accosts dignitaries he must stand on the right side. Good for him is, of meats, mutton; and sugar. If he fall sick on a Thursday it will be his death.

Women.

Whoso is born under this sign will be beautiful of form, tall, of beautiful hair and eyes, precious to men: on her hand and body a mole; manner delicate; cheerful; long-tongued; stout. Most of her sufferings in her head. She will be affectionate to her relatives, benevolent, kind-hearted, forbearing, emotional; slow in her work. The habitation of her life is *Ḥamal;* she will be long lived, will have a reputation among people, and will lose some of her brethren. The habitation of her property is *Thawr;* blessed in her living, moderate of property, careful. The habitation of her brethren is *Jawza:* she is lucky among her brethren, and happier than they. The habitation of her father is *Saraṭân:* she will bury her father before her mother, and will inherit from her mother. She will have many children, most of them males, and [47]
will have much trouble from them. The habitation of her diseases is *Sunbulah:* it indicates that she will suffer much from headaches: liquorice is good for her. The habitation of her marriage is *Mîzân:* she will be happy with her husband, faithful and religious. The habitation of her death is *'Aḳrab:* she must fear for her fourth and her forty-sixth year. If she pass them her life will be a long one. The habitation of her journeys is *Ḳaws:* she must not travel at all. The habitation of her husband is *Dali:* it indicates that she will have great happiness with her husband. The habitation of her enemies is *Ḥamal:* she will have many enemies and enviers. If she sicken on a Thursday it will be the cause of her death.

The Second Sign—Thawr.

Earthy. In it the moon is ascendant, and it has the thirds of *Sunbulah* and *Jadi.* Of the habitations of the moon it has *Saraṭain* and *Buṭain* and two thirds of *Thurayya.* It has three aspects, the first of *'Uṭârid,* the second of the moon, and the third of *Zuḥal.* If one be born [48]

under the first aspect he will have a beautiful face, and be cheerful, generous of mind, soft-hearted, loving distraction and wealth, acquisitive of property, with luck in selling and buying. If one be born under the second aspect he will have a cheerful face, and be fond of pleasure and a great eater, lucky in commerce and courageous. If he be born under the third aspect he will be a good counsellor, silent, trustworthy in secrets: his luck will be in service and in intercourse. His condition will improve in the end of his life. Let him fear burning of fire or the bite of a dog. He will be red of colour, handsome of form, very quarrelsome and malevolent, beautiful of appearance, intelligent, not caring about anything but what he does himself, enduring misfortunes, greatly afflicted, having a fat paunch, very careful, and increasing in property as his years advance. Weak of heart, lucky in all his doings, with a mole on his neck and breast. A gatherer of property, he will be envied for his goods. If he see the new moon a female should be before him. If he accost a dignitary let him stand on the left. He will be noted among people, proud, affected in his gait, brilliant in conversation. [49] Probably he will be an object of suspicion, although innocent. He will have luck with women. He will turn night into day, grasping the property of others. The end of his life will be better than the beginning. His eyebrows will be united, his shoulders broad. The habitation of his property is *Jauza:* he spends his property on the ungrateful. He passes from poverty to riches, and from straitened to easy circumstances. The habitation of his brethren is *Saraṭân:* he will have happiness among his brethren and will be distinguished among them: he will be robbed and defamed. The habitation of his father is *Asad:* it indicates that he will bury both his parents and inherit nothing from them, and will have no luck from his relatives. The habitation of his children is *Sunbulah:* he will have many males, but most of them will die. The habitation of his property is *'Akrab:* he will have pains of the feet, and of the spleen; he will be in danger of burning by fire or of the bite of a dog. The habitation of his fear is *Kaus;* let him fear sore throat. The habitation of his mode of life is *Judi:* it indicates that he has little luck with his friends, much care, loving learning and manners, loving instruments and music: with much inclination for women. The habitation of his journeys is *Dali:* it indicates that he will spend in his travels. The habitation of [50] his honour is *Ḥût:* it indicates that he is abundant in income. The habitation of his happiness is *Ḥamal:* he is praiseworthy and lucky in his business. The habitation of his enemies is *Thawr:* he will have many enemies; and they will not be able to conquer him. Of days, Friday is fitting for him, and journeys in the West. His partners should be those whose stars are *Sunbulah* and *Judi.* If he see the new moon a female should be before him. Let him fear his second and his fortieth year: if he pass these he will live long. Friday and Saturday are his lucky days; his last day will be a Wednesday. (God knows best!)

Women.

Whoso is born under this sign will be coquettish, of beautiful appearance, long-handed. If *Zuḥal* look upon her she will be a brunette, not very quarrelsome, not sociable, hard hearted, blessed in her house, bold, with a mark in her face, deceitful. The habitation of her property is *Jawza:* she will be prodigal in her food. The habitation of her brethren is *Saraṭân:* she will be good to her brethren. The habitation of her father is *Asad:* she will have very little sense of duty and will be envied by her neighbours. The habitation of her children is *Sunbulah:* [51] she must fear for her male children. Her company will be appreciated and she will be very hard upon anyone who may quarrel with her. The habitation of her husband is *Mîzân:* she will marry a rich man of high standing and she will have great happiness with him. The habitation of her death is *'Aḳrab:* she will have pains of the heart and pains internally. The habitation of her journeys is *Ḳaws:* let her fear to travel. The habitation of her fear is *Jadi:* she must fear an aged man. She will travel much. She must fear for her twelfth and her forty-second year. If she pass them her life will be a long one.

The Third Sign—Jawza.

Its star is *'Utârid;* airy. It has two aspects and it is its habitation. Of the habitations of the moon it has *Thurayya*, *Dabarân*, and *Haḳ'ah*, and the thirds of *Mîzân* and *Dali*. If the sun be descendant in its first aspect, and in the second aspect of the moon, he who is born will have broad shoulders and long hands, will be lucky, not self opiniated, even [52] though he may favour his own ideas. He will be gentle of speech, cheerful, and genial in his own age. He will love learning and will be lucky, which will cause him to become a favourite among the nobility. If he be born under the first aspect, he will be of medium height, thin and yellow of colour. His eyes will be large, his chest broad, and his forehead wide. He will be cunning, and, as his years advance, he will rise in his profession. He will be long-tongued, intelligent, generous, reasonable, and praised in all his doings. He will gather property, will be cunning, and will gain the affections of people. He should join partnership with one whose star is airy. If he see the new moon, a male person should be before him. If he accost a dignitary, let him stand on the right. His journeys will be in the direction of Persia and 'Irak, between the two [53] rivers Tigris and Euphrates. He will carry out whatever he determines upon doing, and will be feared by all people. He will have pains of the feet, but he will get rid of them. He will have a mole on his chest. Let him fear his eighteenth year, and Sunday and Wednesday night. When he sleeps, let him turn his head to the West. The habitation of his

property is *Jauza:* he will spend his money, and that of others, but God will provide for his wants. The habitation of his mode of life is *Saraṭân:* he will live an easy life. The habitation of his brethren is *Asad:* he will have happiness among his brethren. The habitation of his children is *Sunbulah:* he will have many children, but most of them will be males. The habitation of his diseases is *Mîzân:* it indicates that he will suffer chiefly from bile and expectoration; it will be good for him to frequent the baths. The habitation of his wives is *'Aḳrab:* he will marry a good and a rich woman. The habitation of his death is *Ḳaws:* let him fear treacherous winds. The habitation of his journeys is *Jadi:* he will travel much, and will fast during the journeys he takes on foot. The habitation of his honour is *Dali:* he ought to be employed by those in high positions. [54] His star is loved. He will be intelligent. The habitation of his property is *Ḥaut:* he will inherit a great fortune, and will attain great prosperity. The habitation of his enemies is *Thaur:* he will have many enemies, but he will conquer them. Let him fear his twelfth and his fortieth year. If he pass them, his life will be a long one. Wednesday is his lucky day and Friday his unlucky day. (God knows best!)

Women.

Whoso is born under this sign will be amiable and cheerful, will cause delight in singing, will be witty, hot tempered, but easily pacified. She will have a mark in her foot, and will be generous, patient, and will give much happiness. The habitation of her property is *Saraṭân:* she will be the owner of a large fortune and considerable property. The habitation of her brethren is *Asad:* she will have many brethren, but will get very little luck from them. The habitation of her parents is *Sunbulah:* she will bury her father before her mother, and will inherit from them. The habitation of her children is *Mîzân:* she will have many children. The habitation of her diseases is *'Aḳrab:* she will suffer from headache and pains in her joints. The habitation of her husband is *Ḳaws:* she will get very little luck from men. She will be an object of suspicion while she is innocent. The habitation of her death is *Jadi:* she will suffer from pains [55] in her chest. The habitation of her journeys is *Dali:* she will be lucky in her travels. The habitation of her prosperity is *Ḥût:* she will be lucky. If she fall sick, she should eat of the gall of a cock. She must fear for her second and her thirtieth year. If she pass these, she will live long. Her lucky day is Wednesday, and her unlucky day Saturday. (God knows best!)

The Fourth Sign—Saraṭân and the Moon.

Watery. It is the habitation of the moon, and it has the brightness of *Muštari.* In it *Zuhareh* is descendant. It is bright during the day,

and dim at night. Its nature is cold. He who is born under this sign will be fair, will have beautiful eyes, will be skilful in work, good-natured, loving sports and amusements. He will delight in the society of the nobility. He will have a mole on his chest, will be broad-minded generous, and happy in his living. He will be lucky in commerce, and will become rich, and God will let him prosper. He will have a good reputation among the nobility. He must fear for his sixty-seventh and [56] his twenty-eighth year. If he pass these, his life will be a long one. His journeys will be in the North. Monday is his lucky day, and Thursday night. He will be in danger of falling from a high place. His words will be harsh, and when conversing he will close his eyes. There will be a mark in his chest and neck, and he will have pains in his chest, heart, head, and joints. He will be frank in manner. If he see the new moon, a female should be before him. If he accost a dignitary, let him stand on the right. He should join partnership with one whose star is fiery. He will not fear any man, and will be beloved. He will have a grief which will concern a woman. He will have a mole and a mark in his body. The habitation of his mode of life is *Asad*: he will live long. The habitation of his brethern is *Sunbulah*: he will have brethren, and will [57] be distinguished among them. The habitation of his parents is *Mîzân*: he will bury his parents. The habitation of his children is *'Aḳrab*: it indicates that he will be unlucky. The habitation of his diseases is *Ḳaws*: most of his ailments will arise from plethora. He will delight in eating honey. The habitation of his wife is *Dalî*: he will have pains internally. He should avoid water, fish, and cows. The habitation of his friends is *Thawr*: he will get no luck from them. The habitation of his journeys is *Ḥût*: he will meet with good fortune on a sea voyage.

The habitation of his honour is *Ḥamal*: he will get luck from government officers, and he will be beloved by all who see him. The habitation of his enemies is *Thawr*: his greatest enemies will be around him, but he will conquer them. Monday is his lucky day, and Tuesday and Saturday are his unlucky days. His partners should be those whose stars are *'Aḳrab* and *Ḥût*. He will prefer asparagus to all other food.

Women.

Whoso is born under this sign will have a cheerful face, will be slow in her work, will have blue-black eyes, will be beautiful, blessed in her living, and faithful to her husband. She will be rich in her old age. [58] She will inherit from her parents, and she will probably find money buried in the ground. The habitation of her brethren is *Sunbulah*: they will love her. She will be changeable in her ideas. The habitation of her parents is *Mîzân*: she will be severe with them. The habitation of her children is *'Aḳrab*: she will have many children, but few of them will survive. Most of her children will be females. The habitation of her

diseases is *Kaws:* she will suffer chiefly from fever, asthma, pains in the head and ear. The habitation of her husbands is *Judi:* she will have no luck with them, and she may be left a widow. The habitation of her journeys is *Hût:* she will meet with good luck during a sea voyage. The habitation of her honour is *Hamal:* she will have many enviers, but they will not do her any harm. The habitation of her enemies is *Jawza:* she will have many enemies, but she will conquer them. She must fear for her second and thirty-fifth year. If she pass these she will live long. Her lucky day is Monday, and her unlucky day Saturday. (God knows best !)

(*To be continued.*)

TABLE SHOWING THE MONTHLY MEANS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JAFFA FOR THE YEARS 1904, 1905, AND 1906.

By The Rev. Joseph Jamal, Jaffa.

Monthly Means, 1904.	Barometer.	Att. Ther.	Thermometers.				Rain.	
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.
January	30·117	54·1	63·1	46·1	54·3	No wet bulb in hand up to March 1904.	4·89	16
February	30·118	55	66·9	47	56·9		1·03	4
March	29·990	59·1	70·1	51·5	61·7	56	4·08	7
April	30·014	62·8	76·6	53·4	67·8	59	0·96	1
May	30·013	70	79·3	57·5	71·6	64·8	...	...
June	29·984	75	87·2	63·4	78·9	70·8	...	...
July	29·862	77·8	82·3	67·1	84	74·7	...	...
August	29·753	77·2	89·1	67·6	82·1	73·9	...	...
September	29·721	74·5	83·8	63·5	77·3	70·6	...	...
October	29·728	71·2	75	61	75·7	69	2·65	4
November	29·792	63	76	54	66·5	58	3·68	9
December	29·822	55	60·5	44	57·6	50·9	5·96	13

Remarks.—The highest reading of Barometer was 30·350 inches on the 20th of November, 1903. The lowest was 29·450 inches on the 22nd of March, 1904. The highest temperature of air was 100° on the 23rd of April, 1904, and the lowest 40·5° on the 5th of February, 1904. There were 4 days in July; 3 in August; 1 in September, 1903; and 3 in June, 1904 (making in all 11 days in the 12 months), on which the temperature reached 90°, and 12 days in July; 7 in August, 1903; 3 in April, and 2 in June, 1904 (making in all 24 days) when the temperature exceeded 90°, ranging from 90·5° to 94·5°.

Monthly Means, 1905.	Barometer.	Att. Ther.	Thermometers.				Rain.	
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.
January	29·862	52	62·1	42·2	53	47·2	4·17	14
February	29·858	52·5	66·5	41·6	53·5	49·2	4·54	9
March	29·720	58·5	70·7	47·2	60	54·8	2·00	10
April	29·806	64·7	78	52·7	69·3	62·6	0·50	4
May	29·733	69·4	80·4	56·7	73·3	68·6	...	...
June	29·735	74·5	84·6	63·9	77·8	71·2	...	...
July	29·619	78·6	88·2	68·5	81·2	73·5	...	...
August	29·622	78	89·5	69·5	82·4	75	...	...
September	29·672	76·7	87	65·6	80·3	71·9	...	...
October	29·782	73·7	83·6	62·4	75·9	69·2	2·10	5
November	29·872	62·8	78·9	50·7	66·8	62·9	0·35	2
December	29·843	55	64·8	44·1	54·6	48·4	9·90	14

Remarks.—The highest reading of Barometer was 30·040 inches on January 26th and February 22nd, 1905. The lowest was 29·500 inches on August 17th and December 2nd, 1904, and April, 23rd, 1905. The highest temperature of air was 112° on the 10th of October, 1904, and the lowest 32° on the 24th of February, 1905. There were 5 days in July; 10 days in August; 1 in October, 1904; and 1 in March, 1905 (making in all 17 days in the 12 months), on which the temperature reached 90°, and 2 days in July; 3 in August; 3 in October, 1904; 1 in April; 3 in May, and 1 in June, 1905 (making in all 13 days in the 12 months), on which the temperature exceeded 90°, ranging from 90·5° to 95·5°, and 3 days in October, 1904; 1 day in April and 1 day in June, 1905 (making in all 5 days) on which the temperature exceeded 98°, ranging from that point to 105°.

Monthly Means, 1906.	Barometer.	Att. Ther.	Thermometers.				Rain.	
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.
January	29·899	53·3	61·3	43	53·1	48·8	4·00	12
February	29·763	56·8	68·1	47·5	56·8	51·2	5·72	14
March...	29·807	58·8	70	51·2	60·1	54·6	1·10	4
April	29·778	63	74·7	52·7	66·9	59·8	1·10	5
May	29·707	69·2	80·4	54·8	72·3	65	0·35	2
June	29·720	74·6	83·8	63·3	76·5	69·8	...	...
July	29·609	77·7	89·5	67·8	83·3	75·8	...	...
August	29·634	78·5	90·8	70	82·7	75·5	...	...
September	29·749	75·4	89·3	68	79·3	71·6	...	...
October	29·807	71·3	84	60·4	72·8	67	0·85	3
November	29·804	64·4	79·5	52·6	67·2	61·4	5·20	4
December	29·857	58·7	72·3	49·2	60	54·7	1·90	5

Remarks.—The highest reading of Barometer was 30·080 inches on the 8th of March, 1906. The lowest was 29·430 inches on the 10th of April, 1906. The highest temperature of air was 104° on the 26th of April, 1906, and the lowest 31° on the 29th of December, 1905. There were 7 days in July; 17 in August; 3 in September; 1 in October, 1905; 1 in May; and 1 in June, 1906 (making in all 30 days in the 12 months) on which the temperature reached 90°, and 2 days in August; 1 in September; 1 in October, 1905; 1 in April; 2 in May; and 1 in June, 1906 (making in all 8 days in the said period), on which the temperature exceeded 90°, ranging from 90·5° to 102°.

The amount of rain which fell in Jaffa during the Winter season, commencing from September 10th, 1907, and ending April 29th, 1908, was as follows:—

			Inches.		Inches.		
2	days in	September, 1907,	1·10	against	nil	same month of previous year.	
1	„	October, 1907,	0·20	„	0·85	„	„
10	„	November, 1907,	4·00	„	5·20	„	„
5	„	December, 1907,	3·50	„	1·90	„	„
11	„	January, 1908,	6·95	„	7·05	„	„
7	„	February, 1908,	3·85	„	2·60	„	„
4	„	March, 1908,	1·71	„	3·75	„	„
4	„	April, 1908,	0·90	„	0·90	„	„
44			22·21		22·25		

NOTE.—It is remarkable that the *total* amounts of rain in the two seasons, as above mentioned, agree almost exactly. The difference being in the distribution of rain when compared month against month.

METEOROLOGICAL OBSERVATIONS TAKEN IN TIBERIAS.

By Mr. RASHEED NASSAR, Tiberias.

Monthly Means, 1907.	Barometer.	Att. Ther.	Thermometers.				Rain.	
			Max.	Min.	Dry Bulb.	Wet Bulb.	Inches.	Days.
January	30·927	59·5	64·3	50·5	55·8	49·5	5·04	11
February	30·731	59	64·8	50·5	56·4	51·4	3·21	12
March	30·784	55·9	65·3	54·1	57·6	51·8	2·44	9
April	30·728	67·5	78·4	63	68·5	58	1·10	4
May	30·722	76·9	91·2	68·6	76·9	65	...	...
June	30·683	82	95·5	69·7	81·3	69·2	...	...
July	30·603	87·6	98·6	72	83·7	74·3	...	...
August	30·660	82·9	98·5	71·4	84·1	74·6	...	...
September	30·763	82·3	90·5	67·2	79·9	66·7	...	...
October	30·820	77·9	80·2	66·8	76	64·8	1·23	2
November	30·900	67	70·5	56·3	64·5	56·4	4·62	6
December	30·958	62·4	67·7	51·8	59·8	53·9	3·04	6
Year	30·772	71·7	80·5	61·8	70·4	61·3	20·68	50

Observations to ascertain the Rise and Fall of Lake of Tiberias.

		1904.	1905.	1906.	1907.
		ft. ins.	ft. ins.	ft. ins.	ft. ins.
Jan. 1	Level of Lake below mark on wall	5 5	4 5	5 0	4 8½
,, 15	,, ,, ,,	5 2	4 3	4 8	4 2
Feb. 1	,, ,, ,,	4 8	3 11	4 1	3 8
,, 15	,, ,, ,,	4 6	3 6	3 9	3 4½
March 1	,, ,, ,,	4 3	2 9	3 5½	3 0
,, 15	,, ,, ,,	4 0	2 9	3 1	2 8
April 1	,, ,, ,,	3 9	2 11	2 9	2 5
,, 15	,, ,, ,,	3 5	3 2	2 6	2 7
May 1	,, ,, ,,	3 5	3 6	2 8	2 10
,, 15	,, ,, ,,	3 7	4 1	2 11	3 0
June 1	,, ,, ,,	3 11	4 5	3 1	3 2½
,, 15	,, ,, ,,	4 0	4 8	3 3	3 3
July 1	,, ,, ,,	4 5	4 10	3 3½	3 8
,, 15	,, ,, ,,	4 8	5 0	3 4½	3 11
Aug. 1	,, ,, ,,	5 2	5 2½	3 6½	4 1½
,, 15	,, ,, ,,	...	5 6	3 8	4 5
Sept. 1	,, ,, ,,	5 8	5 7	3 11½	4 7
,, 15	,, ,, ,,	...	5 7½	4 1	4 8¼
Oct. 1	,, ,, ,,	6 0	5 9	4 3½	4 9
,, 15	,, ,, ,,	6 0	5 10	4 5½	4 9
Nov. 1	,, ,, ,,	5 9	5 8	4 7	4 8
,, 15	,, ,, ,,	5 6	5 5½	4 9	4 8
Dec. 1	,, ,, ,,	5 3	5 4	4 11	4 5
,, 15	,, ,, ,,	4 11	5 2	4 9½	4 1

REVIEW.

Ancient Jerusalem. By Selah Merrill, for sixteen years American Consul in Jerusalem. New York, London, etc: Fleming H. Revell Company, 1908.

The long expected work of Dr. Merrill is a large, handsome volume of 419 pages, clearly printed and lavishly illustrated with 48 photographs,

and no fewer than 55 plans, depicting not only the various sites in their relations to each other, and the courses of walls, aqueducts, and streets, but the movements of troops, the division of factions during the siege, and the distances across which the human voice is audible. The photographs are among the best, and certainly are the most numerous ever published in a volume by an expert on the subject. All who have to work in the city will be specially grateful for the many representations of walls ancient and modern, and different styles of stone dressing and masonry. The plans are reckoned in the paging. When these, the list of contents, and the index are subtracted, there remain nearly 340 pages of letterpress. Dr. Merrill is one of the very oldest workers alive in the field, and, since Dr. Schick's death, has almost no rival among experts on the subject, either in length of residence in Jerusalem, or in the constancy of the vigilance with which he has observed the life of the city and its surroundings, or followed the excavations and discoveries within it. His occasional papers in the *Quarterly Statement* and *The Biblical World*, and the great generosity with which, through many years, he has communicated his intimate knowledge, both to specialists and to tourists, have long created an eager anticipation of the day when his manifold official services (the benefits of which others, besides his countrymen, most gratefully acknowledge) should allow him to put the stores of his experience into public form.

Before coming to his topographical arguments, which constitute the bulk of the volume, we must record that it contains other information, such as only one, long resident in the city, with the private and public opportunities that Dr. Merrill's post has afforded to him, could furnish on the common life of the population. We may instance the notes on the milk, butter and cheese supplies, the description of the present lines and centres of traffic; the contrast between the combustibleness of ancient Jerusalem and the infrequency of conflagrations at the present day; and the statement of a remarkable stream down the Valley of Hinnom after the excessive rainfall of Dec. 1905. The long last chapter on Rock and Quarries contains an account of the best quarries, ancient and modern (those of Neby Samwil are especially interesting; while the tradition that the great stones of the Temple were taken from those near the Damascus Gate is shown to be "pure fiction"), with descriptions of the varying qualities of the rock in them. Dr. Merrill argues for the persistence of one Hebrew style of masonry down to the time of Hadrian; and in particular for the absence of evidence of Greek influence. It is (he says) an "indisputable fact" that "the stone-work of Herod is precisely similar to the early examples of Phoenician work." Characteristics of Hebrew stones he believes to be their massiveness, and a boss and margin dressing of a peculiar form. On p. 384 illustrations (not drawn to scale) are given of various forms of stone dressing. Fig. 12 "represents the general form of Hebrew stones . . . The characteristics are peculiar and marked;

no other people ever succeeded in imitating perfectly the Jewish bevel." On Fig. 15: "in their best work in re-cutting old stones, the Crusaders made a perfectly smooth face, as Fig. 16 in section would show; while the Hebrews made a broad, deep margin, leaving a rough full face." Of Fig. 13, a long, low stone: "such a stone could not have been made by a Hebrew, and cannot belong to the Hebrew period; it requires no great skill to discover that it was fashioned by some Italian hand." But although massiveness and a broad margin were thus characteristic of Hebrew stones, one or the other might be wanting. For example, there is no draft on Fig. 14, and a sentence on p. 383 tells us that Herodian stones were "prepared sometimes with and sometimes without the bevel or marginal draft." Again, p. 385: "it was only after Hadrian had banished the Jews that Hebrew influence ceased ... From Titus to Hadrian all stonework would therefore be Jewish in style and character, although we have no right to expect to find in this period the massive blocks which were conspicuous in the periods of the nation's great prosperity."

With Dr. Merrill's convictions of the unmistakeable characteristics of Hebrew stones it is interesting to contrast Mr. Dickie's disbelief in our ability to define the date of a building by its dressing (*Quarterly Statement*, 1897, p. 61). As to the statement that the Hebrew style lasted untouched by foreign influences to the time of Hadrian, we must remember that (on the evidence of Josephus himself) Herod introduced Greek styles into at least the outer courts of the Temple; that Greek mouldings and ornament have been recognised in the Arak el-Emir buildings and the tombs in the Kidron Valley; and that Sir Charles Wilson (*Golgotha*, p. 123) says that Greek influence is "very apparent" on the platform of the so-called "David's Tower," which is generally regarded as the platform of Herod's Tower, Phasael.

As to the topography, Dr. Merrill's method is to start with the arrival of Titus before Jerusalem, and work backwards. The first three chapters trace the approach of Titus himself, that of the Tenth Legion, and Titus' plan of operations. Then comes one on the Third, or Agrippa's, Wall, and others on Psephinus, the Camps of Titus, the First Wall, Bethso, Herod's three Towers, the Hills of Jerusalem, the Xystus, "the Kidron," and Herod's Palace. Three follow on the factions and the division of the city among them; others on various landmarks during the siege, on the partial burning of "the New City," methods of siege, the wall of circumvallation, the use of timber in building, and then two on the Second Wall. After several others on historical subjects, we have one on the Permanence of Eligible Sites; one of needful emphasis on the distinction between building and re-building; and then several on, respectively, Antonia, Acra, Ophel, Jerusalem a Mountain Fortress (with consideration of the Millo), the Site and Building of the Temple, Royal Burial Places, Gihon and Maktesh. Chapter XXXIX is entitled "Basilica,"

and in Chapter XL there is an account and estimate of both the work and the topographical data of Nehemiah.

We have space to do little more than enumerate some of Dr. Merrill's principal results. As is well known, he is among those who trace the Third Wall far to the north of the present north wall, so as to fix the Tower of Psephinus (at its north-west corner) at the Russian Administrative Buildings, and so as to include in the wall the ancient remains to the east of those buildings. But he brings it back to the old city on a different line from Robinson. Robinson ran the Third Wall on to the north-east corner of the present walls. Dr. Merrill brings it south farther to the west, and on the other side of the hollow or ravine contributory to the Kidron, which Sir Charles Wilson has called St. Anne's Ravine. The present east city wall running north from the Temple area "shows plainly its composite and modern origin" (p. 51), "the new work in both wall and towers [at the north-east corner] belongs to the Christian-Arab period, *i.e.* before A.D. 1243." The trench outside may be that attributed both by Christian and Arab writers to Saladin, but in any case the principal stonework belongs to that period (p. 398 *f*). Thus Dr. Merrill holds that the present north-east corner of the city "was no part of Jerusalem in ancient times." Bezetha lay wholly to the west of the contributory ravine. It is significant that in his argument for the above course of the Third Wall, Dr. Merrill finds it necessary to change the "Royal Spelaia" or caverns, past which Josephus describes the wall as running, to "Royal Mnemaia" or monuments, for he considers the epithet "Royal" as inappropriate to caverns and holds them to have been the monuments of King Alexander, which he places to the north of the present Church of St. Stephen, with the Fuller's "Monument" (according to Josephus, near the north-east corner of the wall) to the east of them, and Helena's monument immediately to the north of the "Tombs of the Kings."

Dr. Merrill places the gate Gennath, the starting place of the Second Wall, immediately north-east of the present citadel, and traces the course of the wall northwards along the 120 feet of ancient wall, discovered and described by himself in 1885, and now under the eastern wall of the Grand New Hotel. This line he prefers to a line lying more to the east along the Muristan, on which "similar remains of Jewish work have been found," for these he believes "did not belong to any city wall" (p. 157) and he assigns them to "the Maccabees in fencing off the Acra from the Lower Market Place" (p. 298). He also refuses the claims of the remains in the Russian church east of the Holy Sepulchre to be a gate in the Second Wall; they are neither "an outside nor an inside gate of the gate of the city" (pp. 298, 302). By zig-zags his plan carries the Second Wall northwards till it breaks the line of the present north wall close by the Bab Abd el-Hamid. Thence he traces it north-east, outside, but in rough parallel to, the present

north wall, as far as a point about 200 feet east of the Damascus Gate. From here he takes the Second Wall east-south-east and south-east to Antonia: "the ground rises here and the wall would rise with it" suitably to Josephus' words, that the wall "went up to Antonia" (p. 162). But this last supposed stretch, precisely that on which no ancient remains are found, is, besides, open to the serious military difficulty that the first part of it, at least, leaves higher ground outside the wall. The point at which Titus attacked the Second Wall, "the central tower," on its northern section, is placed by Dr. Merrill in a dip or depression some 400 feet west of the Damascus Gate, which along with the absence of Jewish stones in the present wall (he suggests) illustrates the statement of Josephus that here the Second Wall "was low" and "was not joined;" the latter phrase being explained by Dr. Merrill as "not joined to itself" that is "hastily repaired and put into as good condition as possible before the siege began" (pp. 159, 165). We may add that Dr. Merrill agrees with the usually accepted site of Antonia, at the north-west corner of the Haram area; that he considers it to have been the probable residence of the Procurators (p. 191); and that he demurs to Schürer's argument that the Roman garrison of Jerusalem consisted only of one cohort (*τάγμα* in *Wars*, V. v. 8, meaning a cohort and not a legion), for he argues this would have been too small a force to keep the turbulent city in order. The present Turkish garrison for a much more peaceable population consists of from 600 to 800 men "while in the district there are not far from 1600 soldiers constantly on duty" (p. 217). He also thinks that when 480 men were detached to escort Paul that would have left only 120 in Jerusalem, and that it is "beyond reason to consider such a thing as even possible" (*ibid*). But on the other side these facts are to be noted. Till Vespasian's advance the Romans employed only auxiliary troops in Judaea. A cohort consisted of from 500 to 1000 men, and had *besides* about 500 cavalry attached to it. Only 200 infantry escorted Paul and were absent only one night from Jerusalem. In Acts xxi, 31, the commander of the garrison is distinctly called *χιλίαρχος τῆς σπείρης*, while even Josephus calls him no more than a Phrouriarch. The Romans had other troops at Caesarea.

As for the first of the three walls of Josephus, Dr. Merrill traces its northern stretch on the universally accepted line from the west wall of the Temple enclosure to the present citadel, and from this, southwards, continues it on the equally accepted line above Hinnom as far as Maudslay's scarp, where he places Bethso (identified by him with Bethzur of 1 Macc. vi, 26) (see Ch. VII and VIII). But here he thinks it turned east (apparently along the line of ancient wall uncovered by Dr. Bliss) and then north-east to Burj el-Kibrît from which it followed pretty much the line of the present south wall of the city towards the point of its attachment to the south wall of the Haram area (Dr. Merrill's plan does not represent the actual attachment as he conceives it). Such a course

he believes suits the line traced for the wall by Josephus (*Wars*, V, iv, 2) and particularly the data of the latter in reference to the wall's relation to Siloam (pp. 61–65); and also to have a possible relation to the aqueduct on the south side of the modern Sion—"they seem to follow each other as though it were by design" (p. 63). Thus Dr. Merrill leaves a large part of the South-western Hill and all the Eastern Hill south of the Haram area outside the south city wall, both at the time of the siege and through the previous history. But it is difficult to see how such a course, not round the edge of the South-western Hill but across the middle of the long back of it, suits the statement of Josephus that a single wall in this quarter sufficed for the defence of the city, because it ran "above impassable ravines" (*c.f.* the testimony of Tacitus and other writers). There is no ravine immediately outside the course, which Dr. Merrill suggests, after it turns eastwards from Maudslay's scarp, nor again where it crosses the Eastern Hill. Besides, such a course would leave outside the wall "the place called Ophlas," which during the siege Josephus describes as under the command of John; and however ambiguous the data of Josephus may be in *Wars*, V, iv, 2, concerning the wall's relation to Siloam, he distinctly says elsewhere (*Wars*, V, vi, 1) that Simon held "the fountain." Moreover, there is the line of wall, or walls, uncovered by Dr. Bliss all the way round the South-western Hill above Hinnom, from Maudslay's scarp to the mouth of the Tyropoeon, which suits so many of the above data of Josephus. Dr. Merrill, however—who does not mention this discovery, but only says that "some writers represent a wall running down from Bishop Gobat's school towards Siloam"—objects *first* that this does not suit Josephus' statement of the relation of the First Wall to Siloam (which indeed is a difficult point), and *second* that the descent of a wall from the school to Siloam would mean a drop of 400 feet in 1200. Still, other great walls are known which descend as rapidly. The line of this one is above an "impassable ravine" (as Josephus describes the First Wall to have run), and above all Dr. Bliss has actually laid bare not only one but two walls (of different dates), with several formidable towers, along this direction.

There is only room to add that Dr. Merrill holds that "the names Zion, City of David, Fort, Castle, Stronghold, all refer to identically the same place;" that the Acra of the Greek period occupied the same site (pp. 242–247, etc.), that is, immediately to the east of the Church of the Holy Sepulchre; and that it is possible to locate the residence of Solomon with considerable certainty, on "the north end of the spur, south of the Temple area" on the Level 2279 east and west and below the northern level of 2379. "The distance from the extreme points north and south is 550 feet. Dividing this we have 275 feet each way, north and south, to which the distance east and west happens to correspond" (p. 251). He takes the Upper Pool of Gihon as the Birket Mamilla, the present aqueduct from it into the city as the "naḥal" that ran through

"the midst of the city" (so he amends 2 Chron. xxxii, 4, and he has the "LXX" on his side); the Lower Pool is Hezekiah's to which he brought the "water straight down to the west side of the city of David" (pp. 261–289). He takes the Valley Gate as at or near the Jaffa Gate and there also the Dragon Fountain, and (separately) the Serpent's Pool, both called perhaps from their forms, and he accounts for Nehemiah's placing of the House of David and City of David on the Ophel ridge by the migration of names (pp. 338–366).

But no summary can do justice to the wealth of detail in the letterpress, the vividness of the many plans of this volume, or the arduous labour that lies behind it all.

G. A. Smith.

NOTES AND QUERIES.

(1) *Garlic.*—In Numbers xi, 5, the Israelites lament that they cannot, on their way to the "Promised Land," enjoy the leeks and the garlic which were so plentiful in Egypt. The word used for garlic, *shûm*, which re-appears in the Arabic *thûm*, and is connected with Assyrian *shumu*, is quite distinct from the Egyptian plant name which was "khidjana." Our knowledge of the ancient Egyptian flora has so much increased recently, as the hieroglyphics are more correctly translated, that it was to be anticipated that some proof of the common use of garlic in Egypt in Mosaic times would be furnished by the ancient Egyptian records. M. Victor Loret, the chief student of old Egyptian botany, has now published his researches regarding garlic, and proves that it was not merely mentioned in the Egyptian papyri, but that specimens of the plant itself have been preserved in a tomb at Thebes. The garlic found there was tied in a bundle, and has been examined by several botanists and declared to be the true *allium sativum*, being almost identical with garlic now grown in the Western Oasis of Egypt, but differing slightly from the modern cultivated garlic of the Nile Valley. A specimen of the Theban garlic may be seen in the Berlin Museum. M. Loret discovered the ancient Egyptian name of garlic by tracing the word in the old Coptic version of the book of Numbers. By this means he found that a plant named

Khidjana, which is twice mentioned in the great Harris papyrus, containing a list of gifts by Rameses III to the Theban temples, is the garlic. He has also found the same plant forming part of the ingredients of a medical recipe, in a late demotic papyrus in the Leyden Museum. It is curious to note that the melons (*'abaṭṭîḥîm*), and onions (*beṣâlîm*), appear connected with the Coptic, and so to the ancient Egyptian, the Coptic words being *beddnga* or *beṭiché*, and *bəṣal* or *baḷjar*. The large quantity of garlic presented by Rameses III to the priests proves it was quite common in Egypt shortly before the Exodus; and the specimens from the Theban Necropolis, which are of the XXIst dynasty, or later than the time of Moses, show it was still grown in the country at that period, as we know from the classics it was in later times. The Egyptian name may have been derived from Libya, but this is uncertain. The interesting fact is the papyrus and antiquarian confirmation of the statement in the Pentateuch.

JOSEPH OFFORD.

(2.) *A Greek Inscription from Galilee.*—In the *Quarterly Statement* for July, p. 260, which arrived during my absence in Asia Minor, I see an interesting inscription from Abil in Galilee, quoted from Professor B. W. Bacon's publication. The reading of the concluding words is clearly false: φροντίδι (ἐπι)στατοῦ τούτου διὰ κημ(σίτορος) is for many reasons an impossibility, as impossible as the reading σεβ(αστοὶ) κ(αίσαρες) in l. 3. A reviewer in the *Revue Biblique* is quoted as making the obvious correction σεββ, *i.e.*, σεβ(αστοὶ δύο), the customary abbreviation to indicate a pair of conjoint emperors; but his suggestion at the end φροντίδι Ἐλίου στατοῦ τούτου διὰ κημσίτορος is equally impossible with Professor Bacon's text.

K in the last line (which is marked uncertain) is misread for C, a common error where the letter is (as here), very faint, and the last words are τοῦ διασ[σ]ημ[οτάτου ἡγεμόνος]. The name of this provincial governor remains uncertain, as the copy is incorrect. The letters CTATOYTOY perhaps contain a Latin name ending in *-avius* (reading OYIOY for OYTOY), or *-orius* (reading OPIOY); both changes are epigraphically easy. The second would give the name Aelius Statorius, where the conjunction of two gentile *nomina* is quite allowable and justified by many examples. But until a better copy is made, the exact name of this governor must remain uncertain. The epithet διασημότατος as a

translation of *perfectissimus praeses* is customary, and was not used after the fourth century (Hirschfeld in *Berlin Sitzungsber.*, 1901, p. 588). An example of this common title occurs in Phrygia (see Anderson, in *Jour. Hell. Stud.* 1897, p. 424). The last words then are φροντίδι Ἑλίου Στατο[ρί]ου? τοῦ δία[σ]ημ[οτάτου ἡγεμόνος]. It was usual that milestones and boundaries should bear the name of the provincial governor and should be dedicated to the emperors.

W. M. Ramsay.

11*th July*, 1908.

(3.) *A Bronze Object from Nâblus.*—Through the kindness of Dr. Gaskoin Wright of the C. M. S. Hospital at Nâblus, I am permitted to forward a drawing of a remarkable bronze object found some time ago in the course of digging a well for the hospital. It was discovered twelve feet below the present surface of the ground.

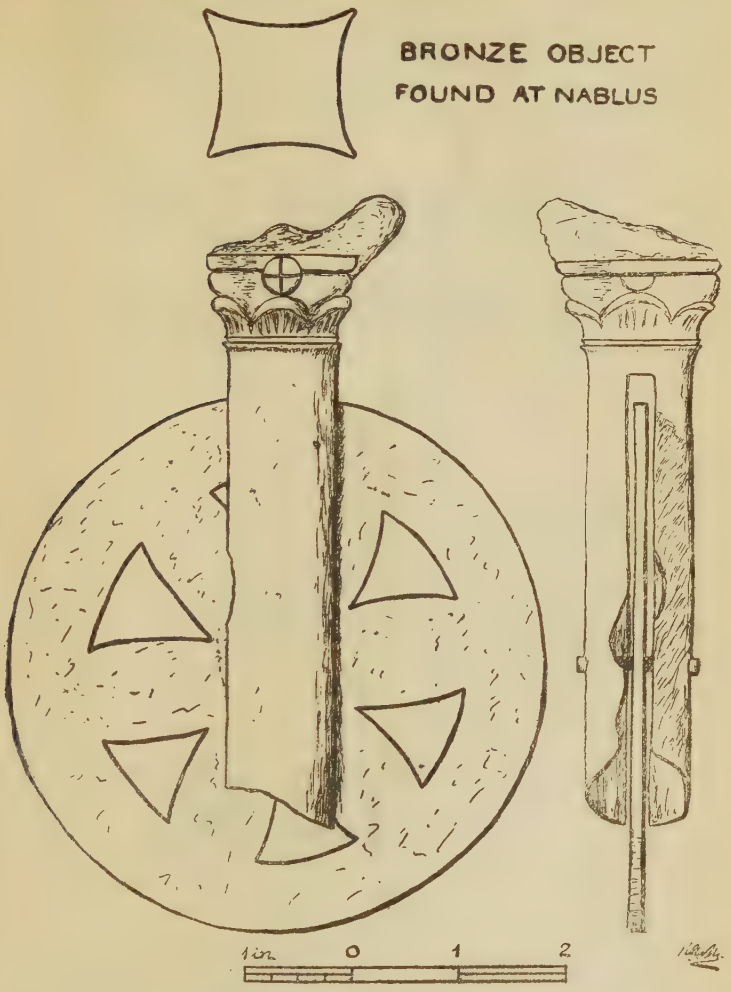
It consists of a hollow cylinder of bronze, broken at the lower end and capped at the upper with a simplified Corinthian capital. The present length of the tube, including the capital, is $5\frac{3}{4}$ inches. In a slot cut through the tube a circular disc of bronze, 5 inches in diameter, is fitted: six triangular holes are cut out so as to make it imitate a spoked wheel, and a pivot is run through the middle on which (when not fixed by corrosion) the wheel rotated. The wheel is now broken away from the tube, owing (as Dr. Wright informed me) to an incautious attempt having been made to rotate it, when the object was dug up.

On the top and sides of the capital is encrusted an irregular lump of lead.

This interesting object is probably a fragment of a votive model of a chariot.[1] It may possibly be restored thus—a rectangular disc of lead, supported by four such bronze pillars, with a wheel playing in each. The pillars probably ended below in bases, that stood on a rectangular horizontal frame, with slots for all four wheels, raised just above the ground so as to allow the wheels to run, without

[1] It seems to me more probable that this is one of the supports of a movable bronze tray or similar piece of furniture; such are, I think, to be found in more than one museum. A votive model of a chariot would be likely to retain the general form of the original, rather than introduce a columnar feature, worked in detail, foreign to the chariot form.—J.D.C.

interference, on a smooth surface. What may have been supported on the leaden disc it is of course impossible to say.

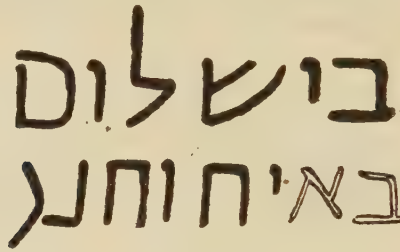


R. A. S. Macalister.

(4.) *A Tomb with Aramaic Inscriptions near Silwân.*—On the slope of the hill below Deir es-Senneh a tomb has recently been opened by a fellah which is interesting for its complexity and for its containing two Hebrew inscriptions. I owe thanks to my friend

Mr. Hornstein for informing me of the discovery and for accompanying me to the tomb, which we measured together.

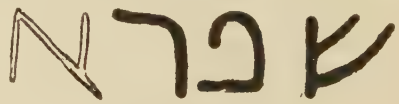
The inscriptions are cut in the soft rock, and blacked in. To squeeze them would remove the paint, to take rubbings would probably break the letters: I have therefore contented myself with facsimile drawings, which Mr. Hornstein checked.



a

(*a*) אבישלום
אבאיהוחנן

"Abishalôm, father of Yehoḥanan." The ה and ח in the second line are not distinguished from one another. The word אבא—note the Aramaic form, instead of אבי—is faintly scratched. The inscription is interesting, as giving an example of the name Absalom—not very common, I believe, in inscriptions of this date—and for the formula "A. *father* of B." instead of "son of." The name Jehoḥanan occurs in 2 Chron. xvii, 15, and elsewhere; it is, of course, the name corrupted into Ἰωάννης and "John."



b

(*b*) שמר

"Shemer"—to which an א has been added in paint, but not cut. It does not seem to be needed, as Shemer is a name complete in itself. It is well-known as that of the original owner of the site of Samaria, 1 Kings xvi, 24.[1]

R. A. S. Macalister.

[1] [Plans and measurements of the tomb, forwarded by Mr. Macalister, may be consulted at the Office.—*Ed.*]

(5.) *Wild Wheat in Palestine.*—In the *Berichten der Deutschen Botanischen Gesellschaft* for 1908, vol. xxvi *a*, part 4, appears an interesting paper by Dr. G. Schweinfurth on the discovery of wild wheat (*Triticum dicoccoides*) in Palestine, by Herr A. Aaronsohn, of Haifa. A single plant, found some fifty years ago at Rashaya, on Mount Hermon, by Theodor Kotschy, and deposited in the Herbarium at Vienna, had been identified by Prof. Körnicke, the eminent authority on cereals, as a primitive form of the plant: but the identification has been disputed, and others had explained this one known specimen as a degenerate, escaped from cultivation. The re-discovery of the plant by Herr Aaronsohn in numerous parts of Palestine has, in the opinion of experts, completely established the hypothesis of Körnicke. The plant has been found in the neighbourhood of *Khan Jubb Yusif*, on the way to Ṣafed; on the east side of *Jebel Kina'an;* round *Ja'ûneh*[1]; between Mejdel and 'Arni, on Mount Hermon; and in considerable quantity and extent over the land of Gilead. An important observation is made that this plant grows *only* on rocky places, where there is little depth of earth. It has been found on Jurassic Limestone and Dolomite, Nubian Sandstone, Dolomitic Limestone, Lower Eocene, and Basalt, but not on soft chalk, gravel, or conglomerate.

The importance of this discovery is two-fold. If the newly-found plant be the original stock from which cultivated wheat was artificially developed, then the origin of wheat-culture must be looked for, *not* in a rich alluvial basin like Mesopotamia or Egypt, but in some stony country; for there, alone, the original plant seems to grow. On the rich soils of the plains and valleys of Palestine the plant appears to be absolutely unknown, though common enough in the more uninviting regions, where it is always found associated with wild barley (*Hordeum spontaneum*). This is, evidently, a fact of far-reaching archaeological importance. Secondly, there is, of course, a practical side to the discovery; for, given the original material from which primaeval agriculturists developed the wheat-plant, it may be expected that with modern scientific methods of culture yet greater results might be attained in developing the material than have been attained hitherto.

R. A. S. Macalister.

[1] Called in the paper referred to by the modern (Jewish colonists') name *Rosh-Pinah*. It seems a matter for regret that in so many instances the Jewish colonists should be complicating the study of topography by re-naming their colonies all over the country.

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